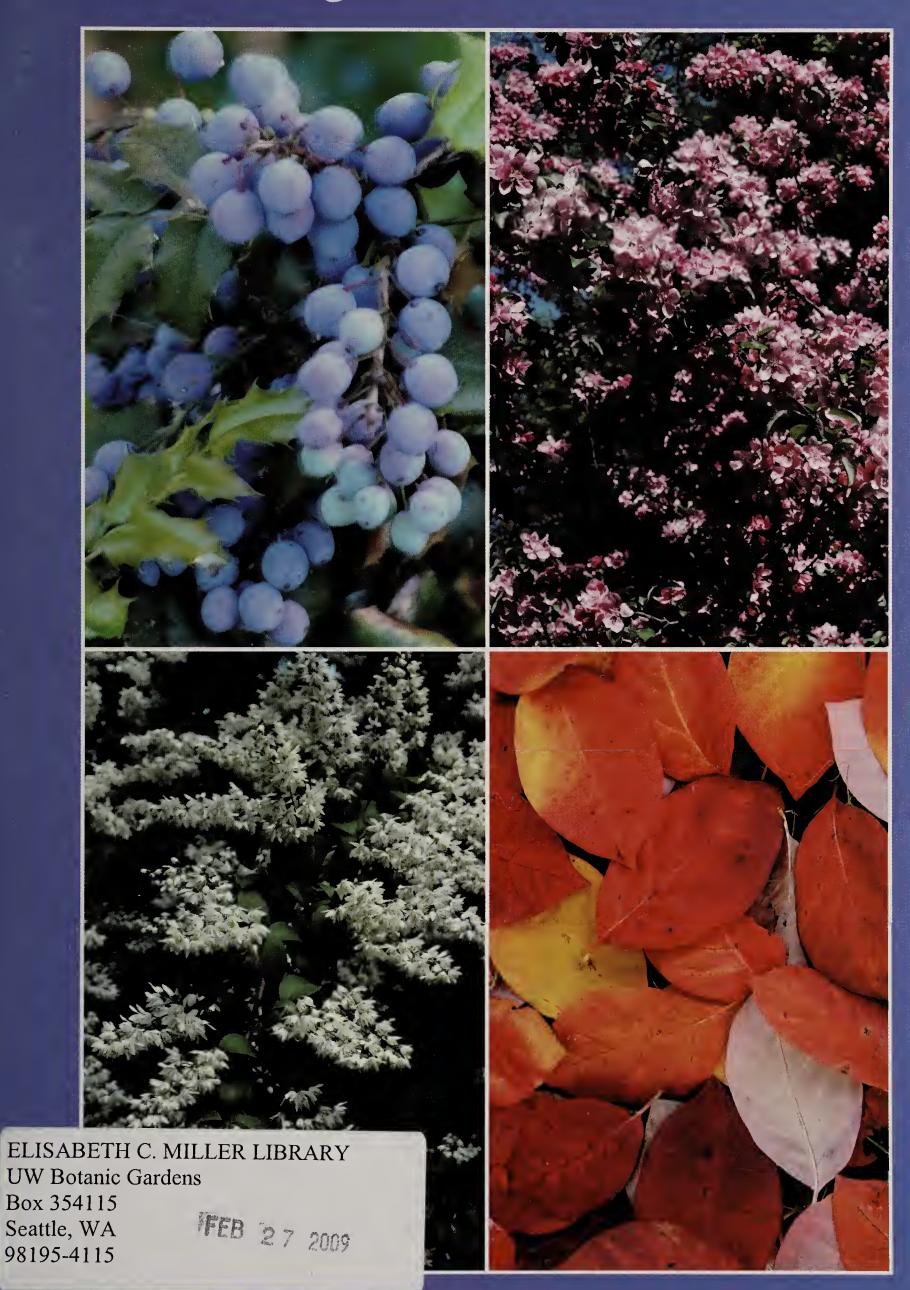
Guide to Washington Park Arboretum



Published by the Arboretum Foundation

on special Edition

Washington Park Arboretum Bulletin Published by the Arboretum Foundation

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Cover

UPPER LEFT: The fruits of native Mahonia aquifolium sometimes persist in early winter. UPPER RIGHT: Malus 'Henry Dupont', from the Crabapple Collection, in May. LOWER LEFT: June flowers of Deutzia glauca. LOWER RIGHT: Nyssa sylvatica excels in fall foliage. Photos by Joy Spurr

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http://depts.washington.edu/wpa/

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The Washington Park Arboretum Bulletin is published quarterly as a bonus of membership in the Arboretum Foundation, Seattle, WA. Volume 62, issues 1 and 2 combine to create this guidebook. 62:1&2 © 2000 by the Arboretum Foundation. ISSN 1046-8749.

The Arboretum Foundation is a nonprofit organization that was chartered to further Washington Park Arboretum (WPA) development, projects, and programs through volunteer service and fund raising. Its mission is to ensure stewardship for the Washington Park Arboretum, a Pacific Northwest treasure, and to provide horticultural leadership for the region. This stewardship requires effective leadership, stable funding, and broad public support.

Washington Park Arboretum is administered cooperatively between the University of Washington Center for Urban Horticulture (CUH), the City of Seattle Department of Parks and Recreation, and the Arboretum Foundation. The plant collections and public education programs are a responsibility of CUH.

WPA is a living plant museum emphasizing trees and shrubs hardy in the maritime Pacific Northwest. Plant collections are selected and arranged to display their beauty and function in urban landscapes, to demonstrate their natural ecology and diversity, and to conserve important species and cultivated varieties for the future. The Arboretum serves the public, students at all levels, naturalists, gardeners, and nursery and landscape professionals with its collections, educational programs, interpretation, and recreational opportunities.

Welcome to Washington Park Arboretum

ou've discovered a Northwest treasure—the Washington Park Arboretum. Enjoy the countless opportunities for both enjoyment and learning when you visit the Arboretum—a living outdoor museum of woody plants.

The Arboretum collects, conserves, and teaches about plants that are hardy to the maritime Northwest. Its 230 acres are filled with 10,000 native plants and 10,000 cataloged trees, shrubs, and vines from nearly every temperate region of the world.

Planning for the Arboretum started in the 1920s, and planting began the following decade. Early development was guided by a design from the famed Olmsted Brothers firm, with plant collections largely organized in taxonomic groupings. In later decades, collections were organized along geographic, ecological, and landscape principles.

The resulting landscape is a welcoming setting for hands-on learning and recreation. The Arboretum has one of the most beautiful and diverse botanical collections in the western United States.

Since 1935, the Arboretum Foundation has provided stewardship for Washington Park Arboretum: fund raising, membership, and volunteer services. The Foundation's commitment to the Arboretum continues with voluntary leadership and funding for daily operations, improvements, and special projects.

If you've come to see many varieties of trees, walk a forested ridge, or learn how to propagate plants, you're in the right place. Today, the Arboretum is a destination for hundreds of thousands of visitors annually. And, just as important, dozens of volunteers come every week to learn as they help garden, work in the greenhouse, and be part of many other exciting special events and activities.

Whether you are a visitor or volunteer, the Arboretum Foundation welcomes you to Washington Park Arboretum. You are certain to find something—or many things—to inspire you to return to this Northwest treasure.

Deborah Andrews, Executive Director Arboretum Foundation

We Bring You the Arboretum

ashington Park Arboretum is managed by three cooperating partners, who are represented on the Arboretum and Botanical Garden Committee, which advises the Arboretum.

The University of Washington owns and maintains the Arboretum's plant collection. It also develops and presents educational programs on conservation and botany, as well as adult programs, tours, and interpretation of the plant collections.

The City of Seattle owns the Arboretum land and buildings. The City's Department of Parks & Recreation maintains trails, lawns, and roadways, and manages the Japanese Garden and Waterfront Trail.

The Arboretum Foundation supports the Arboretum through fund raising, public information, and volunteer recruitment. Foundation staff and volunteers produce fund-raising events and manage the Foundation's membership programs, publications, and gift shop.

Washington Park Arboretum welcomes 400,000 visitors annually, including you.

Mark Your Calendar

Annual Arboretum Foundation Activities

eattle-area residents look forward to popular events produced annually by the Arboretum Foundation. You'll find specific dates, times, and locations in the Foundation's newsletter, *Ground Work*.

EARLY FEBRUARY: Attend the Preview Party for the Northwest Flower & Garden Show, the night before the Show's opening. During this elegant evening, enjoy champagne, hors d'oeuvres, entertainment, and an auction, while getting an advance look at the show's magnificent display gardens.

MARCH: At the Foundation Book Sale, readers find new and used books on gardening and hundreds of other subjects.

APRIL: During the Early Bloomers Plant Sale, you can purchase early season performers from the Foundation's Pat Calvert Greenhouse and the Plant Donations Department.

LATE APRIL: FLORAbundance! is the Arboretum Foundation's legendary two-day plant sale and fund raiser, which features over 50 of the Northwest's finest specialty nurseries.

SUMMER: The Pacific Northwest Gardens Competition, sponsored by the Arboretum Foundation, *Seattle Times*, and Northwest Flower & Garden Show, is a competition among home gardeners.

EARLY FALL: Puget Sound gardeners depend upon the Foundation's Fall Bulb & Plant Sale to find common and unique bulbs that create focus for spring gardens.

EARLY DECEMBER: Greens Galore provides all the fresh greens, garlands, wreath-makings, and decorations you'll need for the holidays. You can even buy bird wreaths and houses as you support the Arboretum.



Franklinia alatamaha is extinct in the wild but thrives at Washington Park Arboretum.

Funds from Arboretum Foundation programs and events support the goal of the Arboretum Foundation, University of Washington, and City of Seattle to save and restore WPA collections while making them more useful for public viewing.

Contents

Guide to Washington Park Arboretum

	Before You Begin
1	Welcome to Washington Park
	Arboretum
1	We Bring You the Arboretum—
	The University of Washington, City of
	Seattle, & the Arboretum Foundation
2	Mark Your Calendar—Annual
	Arboretum Foundation Activities
4	Conservation, Recreation, & Education
5	Play Tag: Learn about
	WPA's Plants from Their Labels
13	Arboretum Etiquette
58	Conservatively Speaking—
	Saving Species & Habitats
	Plants to Find

	Fights to Find
6	An Arboretum Sampler
	—Seasonal Highlights
34	A Bird's-eye View of the
	Arboretum—Points of Interest
38	Leaves You'll Fall For
52	Find Yourself Some Cool Bloomers



0	i Osier isiana
10	Summer
14	Autumn
18	Winter
22	Spring
26	Native Plants
44	WPA's Smallest Garden:
	The Signature Bed
45	Curbside Tour
46	The Japanese Garden
66	Year-Round in the Arboretum
	Things to See
40	Find Pieces of History
50	Look for Arboretum Wildlife
30	LOOK TOT AIDOTEION WINGING
	Plants to Ruy
	Plants to Buy
60	Plant Donations Department
61	Pat Calvert Greenhouse



ABOVE: Phil Green takes Tuesdays off from his construction business to volunteer in the Pat Calvert Greenhouse. Photo by Penny Lewis

Gardening in the Arboretum

Caring for WPA's Plant Collections & Landscape

Get Involved

21	Support Washington Park Arboretum
36	Arboretum Programs for All Ages
42	Become an Arboretum Volunteer
57	Pacific Northwest Gardens Competition
59	The Northwest Flower & Garden
	Show Preview Party
62	loin a Unit—Learn as You Volunteer

62	Show Preview Party Join a Unit—Learn as You Volunteer
31	Find out More Show & Tell— Slide Shows & Speakers
32 64	Visit the Elisabeth C. Miller Library Arboretum Books, Brochures, & Maps

In 1936, the first Arboretum Bulletin was published by the Arboretum Foundation to help visitors and volunteers understand Arboretum plant collections and apply that information to their home gardens.

Conservation, Recreation, & Education

The Heart of Washington Park
BY JOHN A. WOTT, DIRECTOR, WASHINGTON PARK ARBORETUM

Conservation and Collections

he heart of a city park, nature reserve, or arboretum is plants. In a city park or nature reserve, the focus is primarily on native plants, especially ones indigenous to the area.

The focus of an arboretum, however, is different. In earlier times, an arboretum or botanical garden only dealt with exotic plants brought in from other places. Today, however, the direction has changed to studying and conserving both native *and* exotic plants. The current collection policy of Washington Park Arboretum (WPA) includes both of these aspects.

WPA collections are mostly comprised of woody plants, including 4,398 different species and cultivated varieties from around the world. The Arboretum has documented that 1,180 were collected in the wild or in a known spot. The Arboretum also knows that 179 of these accessions are on the World Conservation Union's (IUCN's) Red List of Threatened Species. Therefore the Arboretum continues to join together with sister institutions to save the germ plasm of threatened plants, as represented by those in WPA collections. It may one day be called upon to renew failing native populations.

In addition to 10,000 exotic plants, the Arboretum contains approximately 10,000 native trees and shrubs on its 230 acres. These endemic woody plants are very important to the collection, too. Looking to the future, it will be necessary to study, conserve, and manage this native infrastructure. Future plans call for conserving the Northwest's trees, primarily the big ones.

Recreation

The Arboretum is one of the most important green spaces in Seattle. It is located in the middle of a busy city and serves as a respite for a growing number of city residents. With increasing populations in the Puget Sound area and growing stress in our daily lives, the chance to get away and walk on WPA grounds is important.



"...in many public gardens like the Arboretum's, the public as a whole is really the owner."—John A. Wott

The north end of the Arboretum serves as a window to water recreation around Duck Bay. The opportunity to canoe or kayak and to observe water fowl is extensive. The possibility of a new bike trail along Lake Washington Boulevard will allow bicyclists an easy way to get to the Arboretum. Strolling among the trees remains a favorite pastime throughout the 230 acres.

In future plans, the Arboretum honors the American Disabilities Act with improved pathways and opportunities for all people.

Education & Outreach

For the Public & Students

Arboreta and botanical gardens were originally built and designed for academics and people who could afford unusual plants. In fact, the original planting design for the Arboretum laid out the plant collections in an artificial manner—based on taxonomy. Plant labels were nonexistent, and plant studies of all kinds were prevalent.

But in many public gardens like the Arboretum's, the public as a whole is really the owner. Therefore, today the Arboretum is rapidly changing to provide experiences for a multitude of people.

WPA is counted among the top three woody plant collections in North America.

While taxonomic collections continue to be a large core of the collections, they will be designed to appeal to the general public as well as to the plant aficionado. For example, the Arboretum's outstanding Japanese Maple Collection in the Woodland Garden is by far the most popular spot during the fall. Why? It contains an important yet beautiful collection of Japanese maples. Whether you come to research plants or just to enjoy the fall color, it is a place for everyone.

One of the largest growing audiences in the Arboretum is K–12 schoolchildren. The Arboretum is one of the best outdoor classrooms for them because students can learn about plants, ecology, conservation, habitat, and wildlife in one place. The Arboretum works closely with area schools to be part of the curricula as well as part of everyday life. The Arboretum also serves as a place of learn-

ing for high school, college, and university classes, as well as adult education and public tours. Its location on Union Bay and its diversified land forms, from creek bottom to ridgeland, offer all kinds of learning sites.

How WPA Is Significant to You

Washington Park Arboretum is significant to the people of Seattle as an open green space. It is also significant to the Puget Sound region as an important resource, place of learning, and destination for visitors. And, internationally, the Arboretum is the site of one of the largest and most comprehensive collections of temperate woody plants in the world.

John A. Wott, Ph.D., is Director of Washington Park Arboretum.

Play Tag: Learn about WPA's Plants from Their Labels

lay tag around Washington Park Arboretum. That is, learn how the information on each 1-x3-inch green plant tag helps you get the most out of your visit to the collections. Following is the typical tag (left) and how to read it (right).

ILEX x CORNUTA Chinese holly

C & E China, Korea

108-42

SCIENTIFIC NAME Common Name

Range

Accession no.

The accession number is a unique way to identify an Arboretum plant. The first number in the accession number indicates the order in which it was acquired within a given year. The second number is the year acquired. An accession may be a single plant, a group of cuttings, or a packet of seed obtained at one time. In other words, an accession number may apply to one or more individuals. Each plant tag in the Arboretum includes the accession number.

Plant tag information is stored in a computer database. The Arboretum tracks when a plant comes into the collection—information about its propagation, when and where it was planted in the collection, and how it performs. You need to know the accession number to access this information and to ask staff and volunteers a question about a specific plant. Likewise, you need the accession number before asking the Pat Calvert Greenhouse to propagate a plant for your garden.

Guidebook (62:1&2)

5

An Arboretum Sampler—Seasonal Highlights

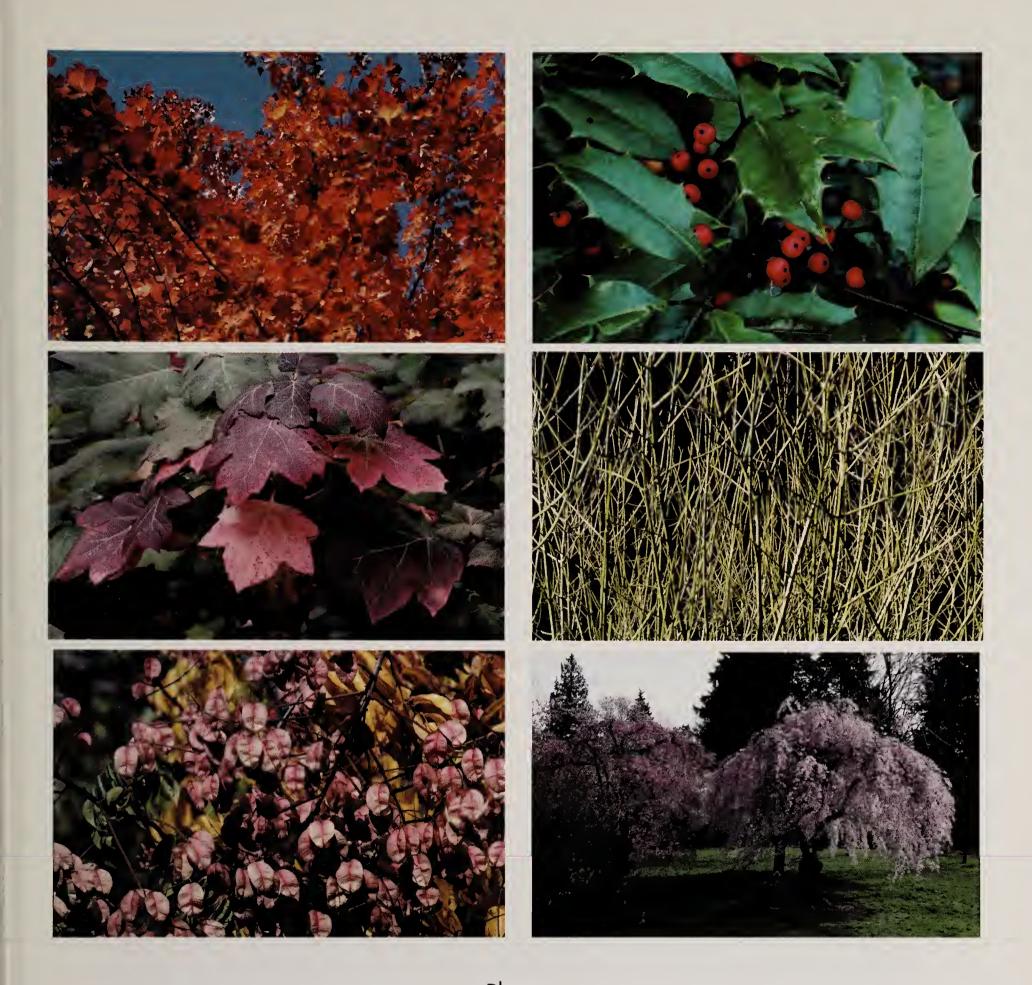
BY REGEN DENNIS

ou will always see something interesting, unusual, and often breathtaking at Washington Park Arboretum. In spring, enjoy a kaleidoscope of blossoms as rhododendrons, magnolias, dogwoods, and crabapples take center stage against the fresh green of emerging leaves. Summer promises the sweet scent of honeysuckles and a stroll among the purple, blue, and white flower heads of the hydrangeas. Fall gives way to a fiery display as cool evenings yield the reds, oranges, purples, and golds of falling leaves. Winter brings berries to punctuate bare branches, subtle and surprising scents, and blossoms that delight the senses—even upon the grayest days.

Visit the Arboretum often and see something new each day as plants change with the seasons and move steadily through their life cycles: sprouting, taking root, growing, flowering, setting seed, and ultimately dying. Look for wildlife among the branches and berries. Discover which plants you'd like to have in your own garden.

To find specific plants in the Arboretum, stop by the information desk at the Graham Visitors Center, and ask the receptionist. Serious plant hunters can purchase *The Woody Plant Collection in the Washington Park Arboretum*, which lists and locates every collection plant. Free trail maps are also available.





Photos (upper to lower)

spring: (far left) Cercis occidentalis (redbud) creates a haze of pink when in April bloom. Pterostyrax hispida offers conical flowers in May, and Picea orientalis (Oriental spruce) reveals the beauty of its cones in spring.

SUMMER: (center left) Deutzia glauca is covered in full bloom, as are Rhododendron 'Whitney Red' and Hydrangea macrophylla.

AUTUMN: (center right) The falling leaves of *Acer rubrum*, *Acer tegmentosum*, and *Koelreuteria bipinnata* (Chinese flame tree) are colorful in autumn.

WINTER: (far right) The holly *Ilex opaca* 'Mae' shows off its winter berries, *Cornus stolonifera* 'Flaviramea' adds texture to the Witt Winter Garden, and cherry blossoms are pretty in pink—even during February.

Self-Guided Tour of Foster Island

BY SHEILA TAFT

oster Island is popular because of its access to Lake Washington, which makes it a destination for many visitors to Washington Park Arboretum. At the northern tip of the island, the Waterfront Trail leads to the edge of the lake and then through marshes to the Museum of History and Industry. Bring a picnic and binoculars to further enjoy this wildlife sanctuary.

The Trail

eave the parking lot at Graham Visitors
Center and turn right. Proceed down
the hill to the bottom, and cross the road to the lagoon.

In front of you are the huge leaves and blue, scented flowers (in spring) of the empress tree, *Paulownia tomentosa*, which is suitable for a large garden.

Go to the water's edge, and head east on the bark path. You will walk under the branches of willows (*Salix* spp.) and hornbeams (*Carpinus* spp). Walk past a big leaning willow with long, slender lance-shaped leaves before joining the gravel path.

In the spring, perfume from the sticky buds of cottonwoods, *Populus* species, may pervade the area before the bridge. In summer, its seed-

bearing snow may fall upon you.

Walk over the wooden bridge. To the right are willow trees and shrubs. First is *Salix babylonica* 'Crispa' (ringleaf willow) and then *S. gilgiana*, which has long, slim leaves. The bark of willows contains salicylic acid, the main ingredient of aspirin, which has been used since Native Americans took it to relieve pain.

Go past the willows. On the right is a grove of alder (*Alnus* spp.). To the left of the alders are the silver-barked birches (*Betula* spp.). Veer left around the bend, and note oaks on both sides of the path. The bend gently straightens to reveal bigleaf maples on the right (*Acer macrophyllum*). Macro means big; phyllum means leaf. In the fall, the large leaves are yellow, and clusters of helicopter-like seeds whirl down to delight children.



In 1924, the City of Seattle purchased Foster Island for \$15,000 to add to Washington Park.

Next is the *Amelanchier* (serviceberry), followed by *Rubus parviflorus*, the native thimbleberry. Throughout this area are labeled pine, Douglas-fir, maple, and numerous oak (*Quercus*) species. Also in this matrix of native trees and shrubs—the basis of the Arboretum native plant collection—is madrona (*Arbutus menziesii*), which has glossy leaves, white heather-like bell flowers in spring, and bark that flakes off in orange-red pieces.

Where the fork becomes a path, find native salal (*Gaultheria shallon*), which, like madrona, is a member of the heath family. Recognize salal by its tough leathery leaves and blue berries that ripen in the late summer.

The Arboretum is renowned for its Oak Collection, and you can see several species in this area. Note the variety in leaf shape, not just the traditional oak leaves that everyone can identify.

You will see the freeway underpass. It is not an ideal element of the Arboretum, but it helps you appreciate the struggles of plantings faced with the modern urban environment. A larch, with tufts of needles, purple cones, and golden fall color, stands like a sentry to the entrance.

On the other side of the tunnel, to the left, find the stand of Oregon ash, *Fraxinus latifolia*. Leaves have five to seven leaflets, and the tree produces one- to two-inch winged seeds known as samaras. One legend says that snakes retreat if shown a stick of ash. Baseball bats and piano keys are made from ash wood.

Head north to Lake Washington. You pass pines, serviceberries, and hawthorns (*Crataegus* spp.). Serviceberries have white flowers in the early spring and small edible berries in the summer. Hawthorns are members of the rose family. It is glorious in spring flower, but the scent is pungent.

You will arrive at the Arboretum Waterfront trail sign.

Marsh Island

Take the floating pathway along the Waterfront Trail.

The Waterfront Trail includes a floating wooden pathway through marshes leading to the Museum of History and Industry.

Photo

LEFT: A Sapling student closely examines his discovery on Foster Island, in May.

The plants you will see are typical of a lakeedge environment. Bubbles of methane gas created by decomposing plants can be seen rising to the water's surface.

Along the marsh, see purple loosestrife, *Lythrum salicaria*, a native of European marshes. It arrived here in the mid-1880s. Though pretty in summer, it displaces other wetland plants and destroys habitat for waterfowl and shorebirds; therefore it is considered to be a noxious weed and is listed as such in Washington State.

In late spring, look for the bloom of the yellow flag iris, *Iris pseudacorus*, and find water lilies (*Nymphaea* spp.). The undersurface and environment of a lily pad is home to many tiny creatures; ducks and coots feast upon them, too.

In spring, this area is filled with the sound of male red-winged blackbirds staking their territory, perhaps on top of the tall shrub, *Spiraea douglasii*. Its dark pink to rose flowers bloom in July.

The trail ends at the Museum of History and Industry. Either visit this museum or continue on to Lake Washington Boulevard, where you can admire the beautiful houses and gardens as you return to the Visitors Center. If you retrace your steps along the original route, you will notice new vistas and new plants unseen on the initial walk. In June and July, when you cross the bridge near Broadmoor you'll notice the native rose, *Rosa nutkana*, right before the parking lot.

Birding

Some of the best Arboretum birding is on Foster Island, which provides marsh and drier habitat for non-marsh plants that attract a diversity of birds in summer. Watch and listen for Goldfinches, Song Sparrows, and flocks of Bushtits. On open water, find Mallards, Canada Geese, American Coots, and Pied-Billed Grebes. At the marsh's edge, you may see Bittern, Heron, and Virginia rail

Sheila Taft is a member of the Arboretum Foundation. She has been a vice president of the Foundation Board and a Washington Park Arboretum guide.

Self-Guided Summer Tour

BY RANDALL HITCHIN

Summer is unfairly considered a dull time in the Washington Park Arboretum. Of course, we all know it is still a wonderful place to walk in cooling shade, enjoying foliage of varied colors and textures. And while it may be more subdued than the spectacular flower show of spring, the summer floral display is no less lovely. When you take the time to look, you will find there are many wonders to discover. They're not everywhere as they are in the spring, but a summer tour affords a chance to see some of the delights of this quieter time of year.

(continued, page 12)



Joy Spurr photos



Photos

Opposite page: Kalmia latifolia (mountain laurel) provides color in very early summer.

This page: A trio of white-blooming flowers:

Stewartia monadelpha (left) has beautiful flowers and exceptional bark. Philadelphus lewisii (right) is commonly known as mock orange because of its distinctive, fragrant scent.

Cornus kousa (Korean dogwood) is a big shrub or small tree that blooms later than other dogwoods.





Begin your tour by traveling one-half mile south from the Graham Visitors Center, stopping at the third parking lot on the left side of Arboretum Drive East. Take along a copy of the Washington Park Arboretum trail map to assist you in locating landmarks and for general information.

This tour follows a loop route that begins and ends at the same point. The entire circuit can be completed in 45 minutes to one hour of leisurely walking. Alternately, you can walk a segment of the trail, beginning with any plant that interests you. The route is generally level to gently rolling, but includes a few stairs.

Just north of the lot you will find a wooden sign reading Rock Rose—Cistus, which indicates that you have arrived in the Mediterranean Collection, a display of sun-loving plants. Wander through this area, and you will find yellow-flowered Phlomis fruticosa (Jerusalem sage) and pinkflowered P. italica, each with spikes composed of many claw-shaped flowers. Nearby is a shrubby member of the Carrot family, Buplerum fruticosa, and sweet-scented lavenders, Lavandula angustifolia. In early summer, a variety of Cistus species provides an abundance of white or pink, saucer-shaped flowers. In addition to their bright summer flowers, many of these plants have wonderfully fragrant foliage. At the north end of this display are two silk floss trees, Albizia julibrissin. These members of the legume family have delicate and tropical-looking fernlike foliage as well as fluffy clusters of flowers in summer, like pink feather dusters.

Walk east, toward the Sorbus Collection. Along the fence, at the east side of this collection, is a planting of Deutzia and Philadelphus, which is now at its peak. In early summer, find P. coronarius (sweet mock orange), a 10-foot shrub with clusters of fragrant white flowers. Nearby is D. scabra, of similar stature, with white- or rose-colored flowers. Walk north to see many beautiful forms, until you reach the north end of the Sorbus Collection.

Cross Arboretum Drive East, and walk north through the *Magnolia* Collection, until you reach the service road. Along the way you will see several specimens of *M. grandiflora*, the Bull Bay magnolia of the southeastern states.

Its large, white, and powerfully fragrant flowers are set against large, glossy, evergreen foliage. Walk east along the service road, toward Arboretum Drive East. On your right is *M. virginiana* var. *australis* 'Satellite', a smaller relative of the Bull Bay.

When you reach Arboretum Drive East, walk north. Only a few paces ahead and on your left is the fragrant *Magnolia wilsonii*; it has white, hanging, bowl-shaped flowers three to five inches wide. This is a large shrub with a long blooming season. A little further north, on the left side of Arboretum Drive East, is *Calycanthus occidentalis* or California allspice. This large shrub has two-inch, deep reddish-purple flowers like small water lilies. The fragrance of these beautiful flowers is variously described as similar to apple cider or Elmer's glue. Decide for yourself!

Continue walking north along the Drive to the next large, grassy area on your left. The dark, glossy tree in the lawn is *Crataegus* x *lavallei* 'Carrierei', a hybrid hawthorn that is attractive throughout the year. You are now in the Woodland Garden, which is the heart of the Arboretum's Japanese Maple Collection. The fall foliage here is spectacular and well worth a visit later in the year.

On the west side of the lawn is the upper Woodland Garden pond. On the south side of the pond are several small, pyramidal trees with white, urn-shaped flowers held in graceful sprays. These fragrant flowers belong to sourwood (Oxydendrum arboreum). Beneath the sourwoods are several cultivars of mountain laurel (Kalmia latifolia), an evergreen shrub with clusters of pink or white flowers appearing like sugarcoated confections in early summer.

Walk north across the lawn and then west on the trail along the north side of the pond. On the right side of the trail is a clump of *Hydrangea quercifolia* (oakleaf hydrangea), a broad six-foot shrub with deeply cut leaves. A few paces further is *Cornus kousa*, the Korean dogwood, which blooms in June and July, later than other dogwoods. They are covered with three-inch creamy white bracts surrounding tiny yellow flowers. The showy bracts may last six weeks.

At the end of this trail, turn left and cross the footbridge; then turn right. Overhead and

Washington Park Arboretum has over 20 specialty collections, such as the mountain ash, magnolias, and hybrid rhododendrons.

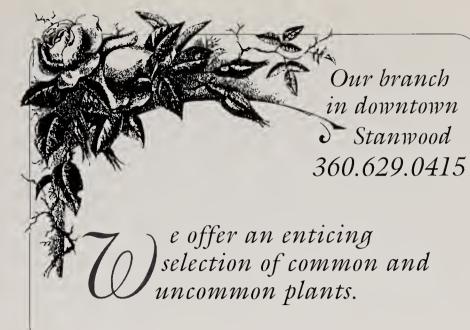
on the left are two Japanese snowbell (*Styrax japonicum*), a slender 30-foot tree with pendulous, pure white flowers. A few paces beyond, enjoy the beautiful view of Azalea Way and the lower Woodland Garden pond.

Walk back up the trail and take your first right, ascending the stairs. At the top, continue walking south until you see a path joining from the east. A few steps beyond, on the left side of the trail, is *Kirengeshoma palmata*. With its trumpet-shaped, butter-yellow flowers and scalloped foliage, this *Hydrangea* relative is a woodland jewel in summer. Continue southward and turn left at the next trail, walking up through Loderi Valley. Bear to the right and return to the *Magnolia* Collection. Turn right, and look over your right shoulder for plum-colored flowers of *Manglietia insignis*. Planted behind this magnolia relative is *Amomyrtus luma*, a Chilean native with clouds of white, starry flowers.

Walk south along the trail, looking up. On your right, is bigleaf magnolia (Magnolia macrophylla), a native of the southeastern United States. The leaves of this species can be up to three feet long, among the largest leaves of any temperate-climate tree. The fragrant white flowers are also huge, up to 12 inches across. At its base is *Illicium henryi*, with its deep-red, fleshy flowers, both beautiful and strange. A little further south, also on the right, is *Clethra barbinervis*, with fragrant white flowers from July to September.

From here leave the trail, walking east until you reach Arboretum Drive East. A few steps to the south will return you to the parking lot where you began.

Randall Hitchin is the Collections Manager and Registrar for Washington Park Arboretum.



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- ▲ keep pets leashed,
- ▲ stay on marked paths and lawn areas, and
- ▲ bicycle on paved areas only.

Please don't ▼

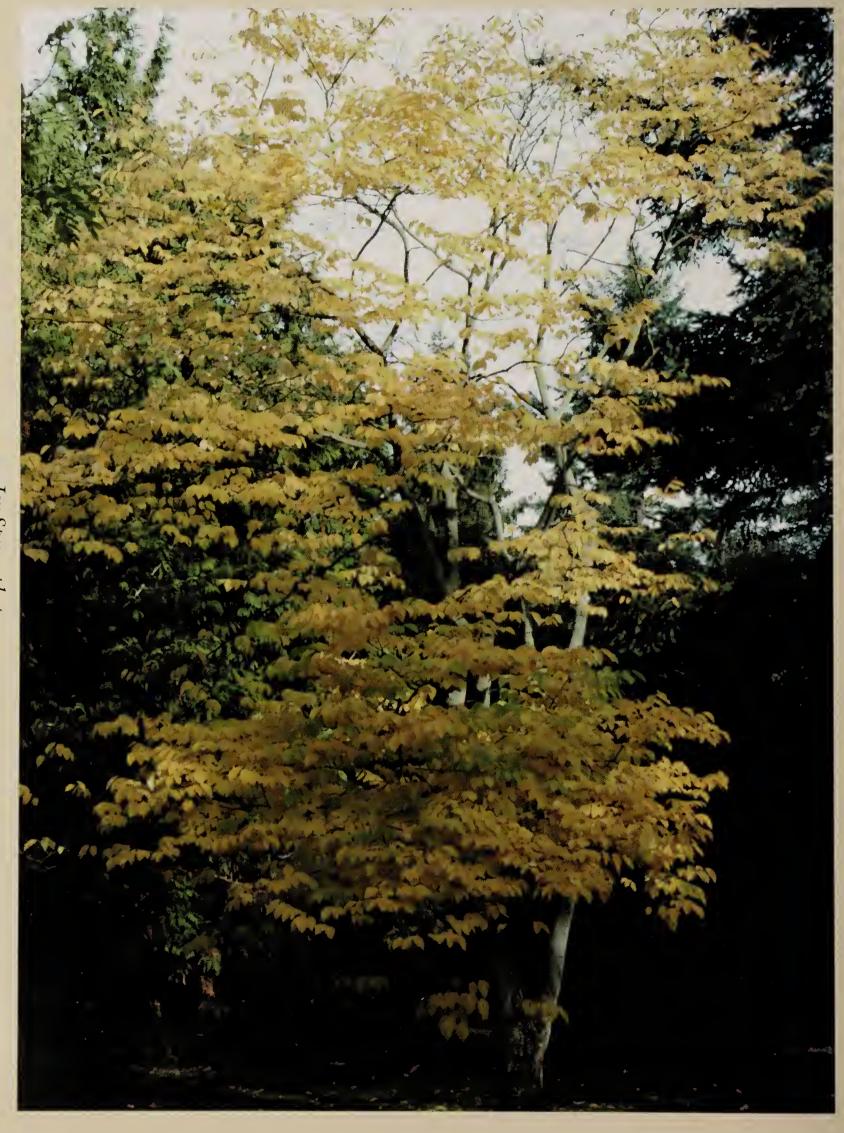
- ▼ take samples of plants,
- walk through shrub beds,
- ▼ play active sports,
- bring alcoholic beverages,
- ▼ build campfires, or
- ▼ feed the wildlife.

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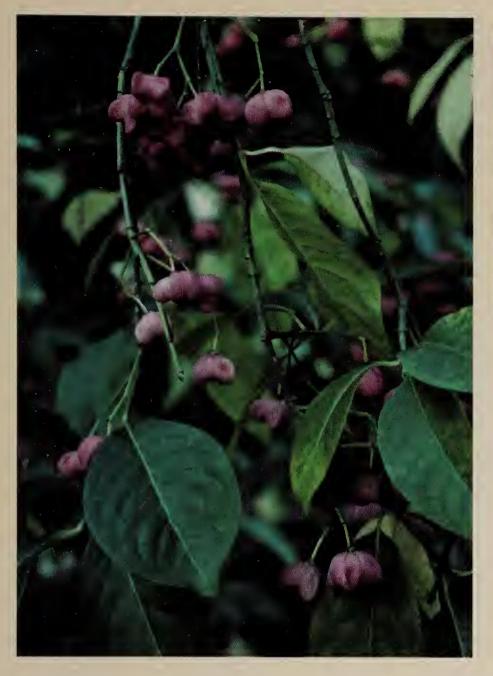
Self-Guided Autumn Tour

BY JAN PIRZIO-BIROLI

utumn covers the three months from late September through early December. However, from the perspective of plants and gardens, fall begins at the end of summer when all growth has stopped, leaves begin to turn color, and trees and shrubs have formed fruits and berries. It then continues until the last leaves fall, the last fruits have been distributed or devoured, and temperatures drop to freezing. By that time, autumn has been succeeded by winter.



Joy Spurr photos





Photos

OPPOSITE PAGE: Cladrastis lutea

(yellowwood) stands out in autumn
evenings. ABOVE: Amelanchier (serviceberry), in October has dependable
fall color, as seen below the Arboretum's
Lookout shelter. LEFT: Euonymus
sieboldiana fruits signal that fall is near.

ashington Park Arboretum has a remarkable collection of trees and shrubs whose autumn performance is superb in foliage color, fruit, and even flowers.

Get a visitors map, and start where Azalea Way meets Lake Washington Boulevard, just north of the Japanese Garden. Continue north on the Boulevard to see an excellent overview of fall color in the lower reaches of the Arboretum. Here you'll find deciduous azaleas, birches, redosier dogwoods, and, most noticeable from the Boulevard, the larches. Before the needles of this deciduous conifer fall, they offer a soft haze of yellow.

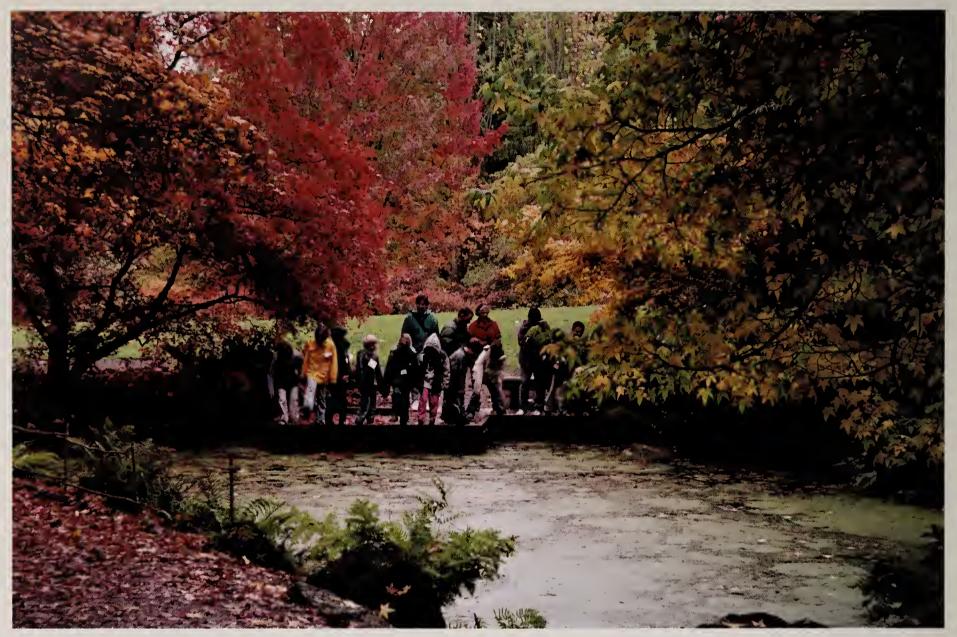
Continue north to where the Boulevard borders the Pinetum on the west. Beyond the small parking lot, growing in low-lying moist ground, are handsome examples of deciduous conifers: Taxodium distichum (the swamp cypress, native to the southeastern United States) and Metasequoia glyptostroboides (the dawn redwood from western China), whose leaves turn wonderful shades of reddish brown before they fall.

North of the Wilcox footbridge, the Oak Collection lies on the right. Many deciduous oaks

(Quercus spp.) are now in their autumn prime. Bordering the north end of the Oak Collection grow several examples of the unrelated tupelo or black gum, Nyssa sylvatica (see cover). Enjoy the brilliant red for which the tupelo is famous.

Continue right around the bend to the Visitors Center. From there, take another showy walk along Azalea Way. The Oak Collection continues for several hundred feet along the western side, and near its southern tip grows a wonderful specimen of *Prunus subhirtella* 'Autumnalis'; this flowering cherry retains soft pink flowers from October to March, more successfully than other examples of this cultivar.

Continue south on Azalea Way until you find (on the left) the pond that defines the western edge of the Woodland Garden (see next page, top). At its east end grows a tall, slender specimen of sweet gum (Liquidambar styraciflua). Its maple-like leaves turn a mixture of yellow to light red before they one day float face down with their stems upright like a flotilla of sailing vessels. On the southwestern edge of the pond is a handsome pair of Japanese maples whose identity eludes the experts. Their purplish leaves turn to bronze in autumn. (continued, next page)



Students from Olympic View Elementary School admire the lower Woodland Garden pond, near Azalea Way, during the Arboretum's autumn Saplings Program. The yellow blaze on right is *Liquidambar styraciflua*.

On the east side of Azalea Way, admire a large planting of several selections of *Acer rubrum*, the red maple. Autumn foliage ranges among cultivars from bright deep red to orangered.

Cultivars of red maple are greatly valued as street trees because the species is native to marshy soils; similarly, it is also able to withstand the poor drainage on the north end of the badly drained area west of Azalea Way called The Flats.

South of the maples are walnut relatives, including a large specimen of Chinese wingnut, *Pterocarya stenoptera*, which produces its winged fruits in pendulous racemes. By early fall, they become rich brown and are extremely noticeable hanging among the golden leaves.

Across from the wingnut is one of the most handsome flowering cherries on Azalea Way: an enormous, round-headed specimen of *Prunus sargentii* at the bottom of Loderi Valley. This species sets a standard: disease resistance, beautiful spring bloom, and orange and scarlet fall foliage.

Continue south, and drop down into The Flats

to find a wonderful mixture of colored fruits and foliage. The honeysuckles (*Lonicera* spp.) and viburnums share space around the base of Honeysuckle Hill. Their berries range from translucent white—resembling gooseberries—to bright juicy red. Approach Rhododendron Glen and the Lookout from Azalea Way, and detour below the trail to find a spectacular display of *Enkianthus campanulatus*, some of which have brighter autumn foliage than any nursery selections. Below the Lookout in October, serviceberries (*Amelanchier* spp.) offer a fleeting display of leaves tinted in delicate shades of peach and pinkish red.

Return to the trail, and head south from the Lookout to find the Holly (*Ilex*) Collection. Hollies have more variety than is generally understood. New cultivars of the deciduous species *I. verticillata* have heavy clusters of red fruits. In contrast are black fruits of the small-leaved Japanese holly (*I. crenata*) and its yellow-fruited form, 'Midas Touch'.

Across Arboretum Drive East from the hollies is another section whose primary interest occurs in autumn and winter. The Hamamelidaceae, named for the witch-hazels (*Hamamelis* spp.), have crinkly, strap-shaped petals and an overwhelming fragrance that also dominates the Witt Winter Garden. Most of the witch-hazel family have excellent autumn color.

A small tree, *Parrotia persica*, stands north of the parking lot, spreading its branches in a vase shape. Its flaking bark is picturesquely mottled; its autumn leaves turn shades of orange and yellow tinged with red.

East, but south of Rhododendron Glen, stop at the sign for the *Camellia* Collection, which occupies both sides of the road for several hundred feet. About a dozen cultivars of *Camellia sasanqua*, the autumn-blooming species, are scattered throughout this section. Planted among them are several species of a deciduous camellia relative, the *Stewartia*, whose wonderful russet-colored, flaking bark—beautiful year-round—is complemented by autumn foliage that has turned to deep, rich maroon. A group grows west of the parking lot, visible from any direction.

Continue north to see the Arboretum's finest example of *Franklinia alatamaha*, facing southeast from the west side of Arboretum Drive East where it catches a generous dose of morning sun. This 12-foot-tall shrubby tree, named after Benjamin Franklin, gives it best performance in such a location. It begins to bloom in late summer and continues to open a few flowers at a time throughout autumn, just as the leaves are turning scarlet.

A third species growing in the *Camellia* Collection, though not a relative, is lily-of-the-valley tree (*Oxydendrum arboreum*). This tall, slender species is sited along the length of Arboretum Drive East on the west side, where it blooms all at once in late summer; the racemes resemble the fingers of a drooping hand. By autumn, these become pale, lime-green fruiting bodies complementing the brilliant display of scarlet leaves.

The Legume Collection extends along the east side of the Drive, north of Rhododendron Glen. Sassafras albidum (the mitten tree) is an East Coast native famous for its aromatic oils since the sixteenth century. The Arboretum's specimen stands alone like a flaming beacon at the east edge of the Drive.

North of the legumes is one of the most dramatic and extended displays of fall colors: the Brian O. Mulligan *Sorbus* (mountain ash) Collection. Here the foliage display combines with a wonderful selection of apple-like fruits (pomes). This important collection is named after Brian Mulligan, WPA's former director, who specialized in this large genus of the rose family.

The Arboretum's collection contains a remarkable variety of species ranging from the common European rowan tree (*S. aucuparia*) with its typical red berries, to exotic species such as those with pastel fruits.

Leave the *Sorbus* Collection, heading north, and pass the old nursery. Once more you're back in the Woodland Garden, across Arboretum Drive East. It deserves a special visit of its own, if only for its Japanese maples. Leaf color in Japanese maples represents the entire range of autumn hues.

The Woodland Garden also contains many other species of considerable interest in autumn. Near the road stands a large specimen of the Carriere hawthorn, *Crataegus* × *lavallei* 'Carrierei'. Its large crabapple-like fruits slowly ripen until they become a deep orange, contrasting attractively with the glossy, dark green leaves. The foliage changes later, gradually taking on colors that almost match the fruits.

At the southeast corner of the Woodland Garden grow the autumn-flowering species of witch-hazel, *Hamamelis virginiana*. Several of these large shrubs border the southern edge, leaning over a service road. Their numerous small, fragrant flowers vary from a pale lemon color to rather deeper shades of yellow among the golden foliage.

Wander back to the Visitors Center by climbing the northern side of the Woodland Garden to the Winter Garden and following the east edge of Azalea Way.

Jan Pirzio-Biroli, former editor of the *Bulletin*, has volunteered for the Arboretum Foundation since the 1960s. She is retired from the Center for Urban Horticulture and is an advisor to the *Bulletin* Editorial Board.

Self-Guided Winter Tour

BY DANIEL J. HINKLEY

Bitten by cold winds and angry rains, spirits are dimmed in winter without the daily recharging offered by intimate association with your garden. Herbaceous borders are flattened and dulled in tones of dun-colored earth, while the woody component of landscapes seems to wait for the stirrings of spring. But savor the engaging winter scenes wherever they are; it is the off-season images within the bounds of the Arboretum that most often provoke emotions that soothe and inspire. Brief encounters of immeasurable pleasure await you on a mid-winter trek.

Visit the Witt Winter Garden to enjoy a well-interpreted horticultural gallery that brilliantly presents plants that mitigate the frustrations of winter gardeners. But also take the path less trodden. Seek the silence and subtlety that extends throughout the entire winter Arboretum.





Joy Spurr photos



Street) Footbridge and south to the Pinetum for splendid winter touring. A maturing grove of *Pinus coulteri*, just north of the meadows, carpets the ground with a dense overlay of russet needles, still in bundles of three and absorbing the sound of your footsteps. Visit after heavy winter storms to see whether this Californian's enormous cones have crashed to the ground. These ferociously spiked, pineapple-sized fruiting structures each weigh up to 10 pounds, so don't linger if the winds still blow.

Slightly to the south of the bridge landing are several large specimens of *Calocedrus decurrens* (incense cedar). Native to Oregon and California, its foliar finery effortlessly sustains the garden through the off-season. Handsome, purple-suffused stems are borne stiffly upright to produce a very narrow specimen, even though the ultimate height may be 100 feet or more. Here, a linear grove of incense cedar rises skyward like great towers of a Gothic cathedral.

Head back over the bridge towards the Graham Visitors Center. Go south to the Mediterranean area; nearby are two rare conifers that many seem to admire only in winter when the competition from flower or deciduous foliage is at low ebb. *Cedrus brevifolia* is a true cedar that is now nearly extinct on the island nation of Cyprus and by far the rarest true cedar in cultivation. Similar to the closely related Cedar of Lebanon (*C. libani*), this striking dark green needled tree remains much smaller



Photos

opposite page: *Taxodium distichum* leaves (top) are beautiful in winter. Find many diverse conifers in the winter Arboretum. Deciduous *Ilex verticillata* 'Aurantiaca' (bottom), known as winterberry, is in the Arboretum's important Holly Collection.

THIS PAGE: Callicarpa bodinieri var. giraldii (top) is one of the Arboretum's most asked about plants. Coral winter branches of Acer 'Sango Kaku' are easy to spot in the Witt Winter Garden (above).

than other cedars, reaching 25 feet in as many years.

Continue south of the Mediterranean Collection at the east edge of Arboretum Drive East until you find the grove of seven *Sequoiadendron giganteum*, of gargantuan proportions realized after five decades of growth. You will marvel at the extraordinary size of these trees, whose total blueprint is held perfectly, concisely, and deliberately in a seed that rests comfortably on the head of a pin.

Directly behind this species is *Taiwania* cryptomerioides, whose gracefully drooping branches, cloaked with sharply pointed gray-green needles, are too seldom seen in Pacific Northwest landscapes. As its specific epithet implies, it is exceedingly similar in appearance to *Cryptomeria japonica* but decidedly smaller in habit. This is one of a handful of specimens found in Washington and Oregon that delivers the potential this tree possesses as an ornamental conifer for the smaller garden.

Continue south along Arboretum Drive East to the double parking lot near the drinking fountain, where you will encounter the dark evergreen clumps of Sarcococca ruscifolia. More often than not, the fragrance arrives before the shrub is met; few hardy shrubs deliver a greater olfactory punch than this and related Sarcococca species. In cultivation, this species and its close ally, S. confusa, are thoroughly, if not hopelessly, muddled. Sarcococca confusa tends to be somewhat shorter in habit, to 24 inches in height, and will not spread outward stoloniferously as does S. ruscifolia. The fruit of S. confusa ripens to black rather than red like ruscifolia. Both, however, are highly desirable for the effects of fragrance in the Witt Winter Garden.

Slightly hidden amongst other accessions is a remarkable broad-leaved evergreen tree that is frequently overlooked by visitors who assume it is the ubiquitous Pacific madrone. *Arbutus andrachne*, hailing from the Mediterranean, possesses lime-green bark revealed by exfoliating bronzed bark and is among the most beautiful broadleaf trees that can be grown for bark effects. Though the native madrone, when varnished by winter rain, is among the most beautiful native flowering trees, this species takes the effect much farther and enlivens a dull winters' day with its extraordinary skin-deep beauty.

Continue southward to the southern bank above the Rhododendron Glen trail to find three

specimens of the dawn redwood, *Metasequoia glyptostroboides*. As the foxy red needles drop in autumn, their most remarkable attribute is revealed—their trunk. A retarded growth rate of stem tissue beneath each lateral limb results in a superbly fluted and cavernous trunk looking more geological than botanical.

Return north by the lower trail to find the Himalayan Hillside, south of Loderi Valley, and many species of maples whose ornamental performance is best appreciated in the depths of winter. Here flourishes Acer tegmentosum, known commonly as the Manchurian maple. Oddly scarce in cultivation, the brilliantly striated stems of white and green remain effective for many years and shine like few other plants can during the dark months of the calendar. Nearby is a triad of Acer griseum, the paperbark maple, which effortlessly draws the winter visitor to the opening in which they grow by trunks of copper and a crisply bronze applique of exfoliating outer bark. Continue north along the lower trail, which leads the winter explorer to the Woodland Garden.

Follow the lower trail through the Woodland Garden, over the footbridge, and up the hill to the Witt Winter Garden. There you can admire a survivor of the Garden's 1980s renovation, bridging the old with the new plantings. Stachyurus praecox (on the northeast side of the garden), which reaches 15 feet, is still undervalued and under-used in our gardens, perhaps indicative of how many people actually venture into the winter landscape to explore those treasures that entertain the winter visitor. When in full blossom, the rigid, drooping spikes of yellow form arching burgundy stems that even the most jaded plantspeople stop to admire. Walk through the arched, bejeweled gateway created by this shrub in late February, when in full blossom.

To finish the walk, go west and take the righthand path leading back towards the warmth of the Visitors Center.

Daniel J. Hinkley is Director of the Heronswood Collection, Heronswood Nursery Ltd., a subsidiary of W. Atlee Burpee and Co. He is an advisor to the *Arboretum Bulletin* and the author of *Winter Ornamentals* and *The Explorer's Garden*.

Support Washington Park Arboretum

BY PENNY LEWIS

Give to the Arboretum Foundation

Donations to the Arboretum Foundation (AF)

are essential to provide support to Washington Park Arboretum. Gifts help to preserve and protect the Arboretum's priceless holdings of rare and endangered plants, present educational programs about conservation to children of the region, provide a place of tranquility and beauty in a major urban area, and maintain and renew the internationally significant plant collections.

Gifts of any size make a difference now and for the future of this woody plant museum. Since 1935, the Foundation has funded many special projects, including the Japanese Garden and

Teahouse, the Graham Visitors Center, and major plant collections and restorations. The Foundation plays a leading role in the Arboretum's master plan, an effort to manage and restore Washington Park Arboretum for future generations.

Contributions may be given to the Arboretum Foundation General Fund, which supports ongoing needs of the Arboretum, or directed towards specific funds. Examples are the Tree Maintenance Fund and the Gardener's Fund (which supports seasonal gardeners during the busy summer).

You also may designate your gift to support the plantings and maintenance for specific areas, such as the Witt Winter Garden, Rhododendron Glen, or Azalea Way. Or donate to the Endowment Fund: Interest earned supports the Arboretum in perpetuity. The Foundation also welcomes bequests.

Gifts to these funds or for a tree, bench, or special project, may be made in honor or memory of an individual. AF gifts are tax-deductible to the extent allowed by law. They are acknowledged to the donor and, if appropriate, to the family of an honoree.

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Benefits to Foundation members include:

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house.

SPECIAL OPPORTUNITIES: Get early entry to sales and events, such as seasonal sales of fall bulbs and spring plants. Also enjoy invitations to special events and tours. New members receive a free plant from the Pat Calvert Green-

Penny Lewis is the Arboretum Foundation Director of Development.

Photo

Carl Barnes visits the Japanese snowbell (Styrax japonicum) given in memory of his wife, Lilli. Future visits will reveal the tree's white, clustering flowers and its red or yellow fall color. Photo by Penny Lewis.

Self-Guided Spring Tour

BY KEITH R. GELLER

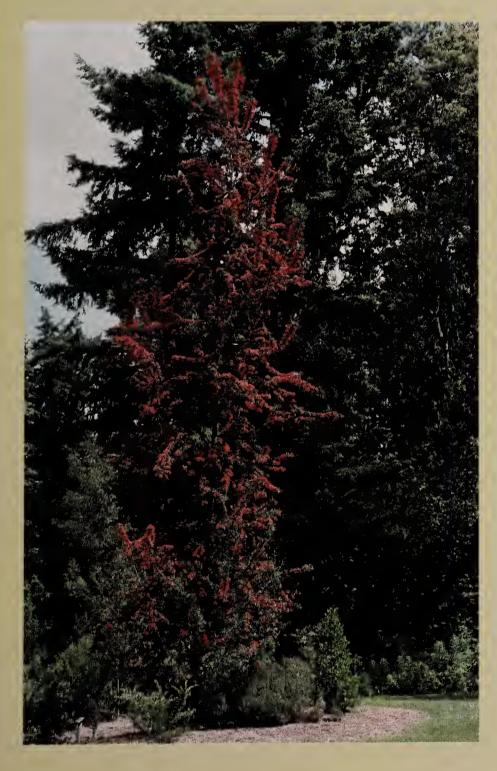
pring is one of the most highly anticipated seasons, and it usually keeps the promise that it holds. Seattle is fortunate to have unusually mild winters that anticipate spring is just around the corner. With so many plants in bloom in the Witt Winter Garden, the transition from winter to spring is often difficult to discern. Begin your spring walk at the Graham Visitors Center: Inside, get a free trail map to help orient you along the way. Note sprigs of currently blooming plants are frequently on display to help whet the appetites of flower-seekers.

(continued, page 24)



Joy Spurr photos







Photos

OPPOSITE PAGE: *Hydrangea anomala* ssp. *petiolaris* makes its way up a fir tree off Arboretum Drive East.

THIS PAGE: *Magnolia salicifolia* 'Wada's Memory' (top) was named at the Arboretum for the man who contributed significantly to the *Magnolia* Collection.

Embothrium coccineum (left), the Chilean fire bush, attracts hummingbirds in late spring and is one of the most requested propagations at the Pat Calvert Greenhouse.

Though the flowers of April's *Akebia quinata* are lovely (middle), WPA Registrar Randall Hitchin says of its pods: "They are three-inch-long fleshy things with a skin like lavender Naugahyde."

alk out of the Graham Visitors Center, and veer diagonally right across Arboretum Drive East, beyond the cement barriers. See two mature specimens of *Magnolia* x *soulangiana* 'Speciosa' with their two-inch upright, furry flower buds. The saucer magnolia displays large, fragrant, tulip-like pink- and purple-flushed white blossoms in March. This small-sized tree's scale and solid, airy branching structure enable it to be used as an entry specimen. Walk under and close to the branches and then look up at the beauty of the buds and flowers.

Go up the street (south), past the orientation map, and up the steps to a barely visible snag smothered with *Wisteria floribunda*. This rambling vine also appears to have abundant purple flower panicles hanging from the nearby *Thuja plicata* (western red cedar). It looks as if the cedar is producing that wonderful flower spectacle.

Follow the path south (left) toward the Witt Winter Garden for several blocks, to find more showy plants. Take the path to the right of the Winter Garden sign, passing between the witchhazels.

Enjoy the spring version of the Winter Garden, and walk to the south end of the loop until you reach a bed that highlights maples and birches with beautiful bark. To their left, find the right-hand hillside path; walk down the slope, and cross the creek on the small wooden bridge. Then follow the steps up the hillside.

Walk until you reach the intersection of the path you are on and an access road; a specimen of *Halesia* is on the uphill side. This uncommon medium-sized tree from the southeastern United States is noted for its pendulous pale pink bell-shaped flowers in May. Look up into the umbrella-like canopy, for a treasurable sight of thousands of flower bells. Even the flowers decorate the Woodland Garden floor.

Walk to your right, several hundred yards down to Azalea Way, and turn left. Pass two log benches and eventually find a stone bench on the right, beneath a cherry tree. Diagonally across on the left side of Azalea Way is an outstanding large tree, *Liriodendron tulipifera*. In May, look closely to find the flowers that name the species—tulipifera. The inverted greenish tulip-shaped flowers are well camouflaged with the young foliage, so you may need to use binoculars for closer observation. Notice the broad band of apricot at the base of the petals. Native to eastern North

America, the tulip tree adds a bold texture and the surprise of a flower to the woodland landscape.

On the far hillside above the reflection pond, find the Amelanchier (Serviceberry) Collection. In April, the abundant and delicate white cherry-like blossoms brighten the slope. In the middle of the Collection, find the multiple-trunked small tree form of A. arborea; its oval leaves are clothed with white hair when they expand. The small fruit ripens in June, changing color from green to red to black-purple. Pause under the massive Rhododendron auriculatum to the left of the amelanchiers. (NOTE: The next section is a steep, rocky trail and may not be appropriate for all visitors. To continue by a safer route, retrace your steps along Azalea Way, and take the first large trail on your right. When it meets the Lower Trail, turn right and rejoin the tour at the point asterisked [*] in the next paragraph). Follow the hillside up around the serviceberries and meet the path at the top of the stone steps just below the Lookout shelter. Continue along the path to the left, and notice how the thickly planted rhododendrons and the tall overstory conifers create a lush ecosystem. Bear to the right.

*Go up Rhododendron Glen, and follow the stream bed, which is loaded with primulas and yellow skunk cabbage early in the season. Halfway up the Glen, look for the *Metasequoia glyptostroboide*s on the opposite side of the bank. The trunks look very peculiar because of the many indentations and the fact that the branches seem too thin for the size of the trunk.

At the top of the trail, turn left. Just as you reach Arboretum Drive East is *Magnolia salicifolia* 'Wada's Memory', a native of Japan. This specimen, being 35 feet tall, contrasts well with the native evergreen trees in the background and the rhododendrons in the foreground. In early April, the three- to four-inch-wide flower has six pure white petals. The leaves are up to four inches long and are oval to lanceolate in shape as the species name implies—willow like.

Head to the left on the west side of the road just 100 feet north of the Rhododendron Glen sign, across from lot 5, and look for *Hydrangea anomala* ssp. *petiolaris*, a beautiful vine climbing the trunk of a tall evergreen tree. This deciduous climber, native to Japan, Korea, and Taiwan, may reach heights of 60 feet or more, attaching itself closely to the trunks and limbs by aerial roots. The older stems are quite attractive with their peeling tan bark. The flat flower structure blooms in May

and is six to 10 inches across. The climbing hydrangea ascends trees, walls, and other supports quite vigorously and can be grown in a residential setting on a wall or fence.

Return to the east side of the Drive, past the next parking lot (7) on the right, and come to an evergreen massing of *Cistus x corbariensis* surrounding several cork oaks (*Quercus suber*). The rockroses, which bloom from May through July, are native to the Mediterranean region and are abundant in Spain and Portugal, as is the cork oak. In the heat of the spring and summer, the sweet honey-like aroma of the leaves adds more detail to this sense of place. The 1.5-inch diameter white flower of *Cistus* blooms in May, with a yellow tinge at the base of the petals. Because of their evergreen quality and drought tolerance, the rockroses occupy an important place in the garden.

Continue along Arboretum Drive East to the Visitors Center, and past many groupings of plant collections, including the magnolias.

In mid-May, just 25 feet west of the road by the Loderi Valley sign, the strong, sweet fragrance of *Magnolia wilsonii* leads you to it. A native of western China, *M. wilsonii* was discovered by plant explorer Ernest Henry Wilson in 1904.

About 200 feet before the Woodland Garden sign and 150 feet west of the road, look for the broadleaf evergreen grouping of *Trochodendron aralioides* growing under a large katsura. The shrub has elliptical leaves and displays unusual-looking erect raceme-like terminal flower structures in late March. *Trochodendron* literally means wheel-tree, because of the way in which the stamens radiate like spokes.

Return to the west side of the Drive. Near the road, in an open area, is a mature specimen of *Crataegus* x *lavallei* 'Carrierei', in spring flower. Keep going until you reach the Visitors Center.

In early spring, before entering the Visitors Center from the parking lot, look for the *Akebia quinata* vine on the large arbor. It twines 30 to 40 feet in length and is evergreen in mild winters. The flowers are fragrant. The grayish violet fruit is about four inches long, resembles a large pod, and contains an abundance of seeds immersed in a white sticky pulp. The first time I came face to face with this fruit in my garden, I thought it was a large slug.

Keith Geller is a Seattle landscape architect, teacher, and member of the Arboretum Foundation. He has written for *Pacific Horticulture* and *Fine Gardening*. He also loves bird watching.





25

Self Guided Native Plant Walk

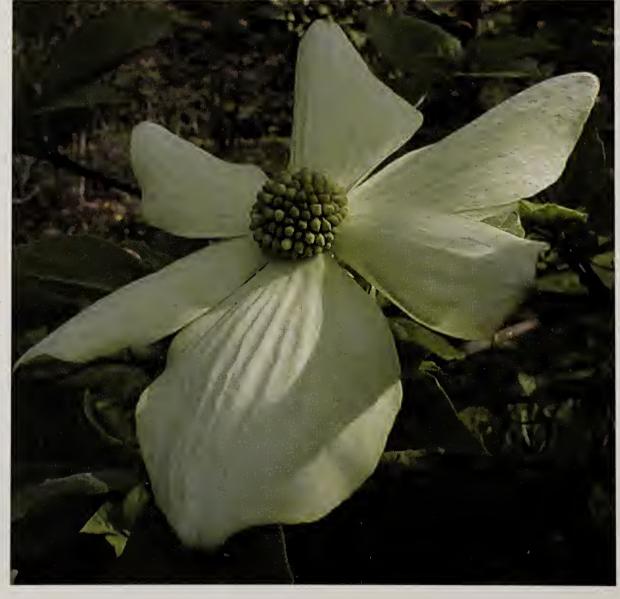
BY LYNN SCHUELER

ashington Park Arboretum is primarily a collection of plants from temperate climates around the world. Since the Arboretum started in 1935, however, these exotic plants have been displayed among plants native to this region.

Many of the native plants you see have not actually been planted; rather, they have established themselves on the Arboretum grounds. Not all arboreta incorporate natives in their plantings, but by doing so, the Arboretum has a beautiful forest-like setting for its collection.







Lynn Schneler



OPPOSITE PAGE: Acer circinatum samara (seedpod) in fall (upper left), Acer macrophyllum (bigleaf maple; upper right), and a close-up blossom of Cornus nuttallii (below). ABOVE: Closely examine the Rubus spectabilis leaves, which have three parts. Cover the middle part: The two remaining leaflets resemble a butterfly.

ou can see many plants native to western Washington by taking a short loop tour from the Graham Visitors Center. To start, cross Arboretum Drive East, to the interpretive map. Look past the sign and to the left of the steps, to see three conifers. These are the three giant evergreens of our lowland forests: Thuja plicata (western red cedar), Pseudotsuga menziesii (Douglas-fir), and Tsuga heterophylla (western hemlock). Before logging, these trees and others thickly covered the hills and valleys of the Puget Sound. They are still common in the Arboretum, as well as in gardens and parks in Seattle.

It is easy to tell the difference between these three trees. Western red cedar has frond-like branchlets and reddish-brown bark. The small cones are held in upright clusters. Western red cedar was the most important tree for Native Americans. In addition to using the wood for homes, canoes, and totem poles, they made boxes and baskets, clothing and hats, and many tools and implements with the wood and bark.

Douglas-fir has needlelike leaves, and the branch tips have very sharp, red pointed buds. The cones are up to four inches long with three-pronged bracts extending beyond the cone scales. Douglas-fir was used to make tools such as harpoon shafts, fishing hooks, and spear handles. The pitch made a medicinal salve, and pitchy wood made torches.

The new growth on western hemlock is very flexible, resulting in a drooping top. The leaves are needlelike, and cones are up to one inch long in pendulous clusters.

Take the path to the left of the map (not up the steps). On your left, you will see a sign about our two common huckleberries. *Vaccinium parvifolium*, red huckleberry, loses most or all of its smooth-edged leaves in the winter. Tiny bell-shaped flowers yield bright red, edible berries. *Vaccinium ovatum*, evergreen huckleberry, has dark shiny leaves with toothed edges. Its flower, similar to red huckleberry, is followed by edible purpleblack berries. *(continued, next page)*

Under the big red huckleberry is a short, shrubby ground cover with large, holly-like leaves of low-growing Oregon grape, *Mahonia nervosa*. It is evergreen and spreads by underground rhizomes. Bright yellow flowers form erect clusters.

Walk up the trail a few yards until you come to a T. Directly in front of you is *Malus fusca*, Oregon crabapple. In early spring, you may see white to pink, fragrant apple blossoms that are followed by small, yellow or reddish egg-shaped apples. Fall leaves turn red or yellow-orange.

Take the path to your left. On the left side of that path is a shore pine, *Pinus contorta* var. *contorta*. In nature it often has a crooked trunk and may form a picturesque sight on a windswept cliff. Native Americans once used the pitch for waterproofing.

Look behind the shore pine for the native dogwood, *Cornus nuttallii*. When in flower, this is the showiest of the dogwoods. Though the yellow flowers are very tiny, they are clustered in the center of large bracts that we perceive of as the flower. Spring bloom is often repeated in early fall, followed by clusters of bright red berries. Fall foliage is yellow to reddish. Native Americans used the wood to make implements and the bark for medicinal purposes.

The ground-covering shrub below the dogwood is salal, *Gaultheria shallon*. It is very common in the Arboretum and the Puget Sound region. The shiny evergreen leaves are used to simulate lemon leaves on Rose Parade floats, and branches are used frequently by the florist trade. Tiny white or pinkish flowers dangle in long clusters at branch ends, producing reddish blue to dark purple berries.

To the right of the dogwood and behind the ponderosa pine is a group of *Arbutus menziesii*, Pacific madrone, which reaches to 75 feet tall. The spectacular young bark is chartreuse and smooth, while older bark is brownish red and peels off to show a smooth orange-brown trunk. The leaves look somewhat like a rhododendron's. Small white, urn-shaped flowers form large, fragrant clusters— a natural source of nectar for hummingbirds. Birds devour the orange-red berries.

Behind and to the right of a ponderosa pine is a large, fountain-shaped shrub. Beaked hazelnut, *Corylus cornuta* var. *californica*, is found throughout the Arboretum and the Puget Sound. Most noticeable in late winter are the long golden-brown catkins,

the male flowers. Next come the soft hairy leaves that turn yellow in fall before dropping. The hazelnuts can be harvested in early autumn and stored until ripe unless the squirrels and jays beat you to the harvest.

Now look to the right side of the path just past the nonnative *Celtis occidentalis*. The twiggy thicket is salmonberry, *Rubus spectabilis*. Superficially it looks like common blackberry, but it doesn't send out long canes like the blackberry does. From late winter to early spring, bright pink, reddish, or magenta flowers attract migrating rufous hummingbirds as well as year-round resident Anna's hummingbirds. The berries are yellow to reddish. In the winter, identify it by its zigzagging twigs, scattered prickles, and golden-brown, shredding bark.

Look back to the left side of the path, and find Alaska cedar, *Chamaecyparis nootkatensis*, which looks very similar to the western red cedar behind it and to the right. Compare their leaves.

About 15 yards up the path is a vine maple, *Acer circinatum*. This small, pretty tree is popular in gardens of the region and common in the Arboretum. The leaves are typically maple-like, with seven to nine lobes, and they turn a beautiful gold or bright red in the fall. It flowers before leafing out in the spring, with tiny white blossoms forming showy clusters. The winged seeds look like little bow ties. Native Americans used the wood for snowshoe frames and small implements.

A little further along the path, still on the left side, you can see a large Acer macrophyllum, bigleaf maple. Although it is not marked, it is just to the left of Zelkova serrata, a nonnative tree that is well marked. Bigleaf maple is the largest of the maple family and also has the largest leaves about 12 inches wide. Common throughout the Arboretum and Puget Sound, it is sometimes a problem in a park such as the Arboretum where its roots out-compete other plants for water and nutrients, its large leaves form a smothering layer in the fall, and the dense shade it forms is inhospitable to other plants. It is not very long lived, so older trees are often diseased, and limbs may come crashing down in storms. Still, where appropriately placed, it is magnificent.

As you approach the next Y, you've reached the Witt Winter Garden. Take the path to the left, then the first right, and follow along the east side of the Garden. Walk past two more right-hand paths, and then immediately look on the left at a deciduous shrub labeled *Ribes sanguineum*

'Henry Henneman', a white form of red-flowering currant. It blooms in late winter to early spring, with showy, drooping clusters of flowers.

Continue along the path past a western red cedar on the right, and then take the left path going uphill. Just a few yards up the trail are a couple of deciduous shrubs under the cedar on your right. Sometimes Indian plum, *Oemleria cerasiformis*, is considered the native harbinger of spring. Small, greenish-white flowers hang in long clusters and are followed by peach-colored fruit that ripens to bluish black. Although edible, the plum-shaped fruit are bitter until fully ripe.

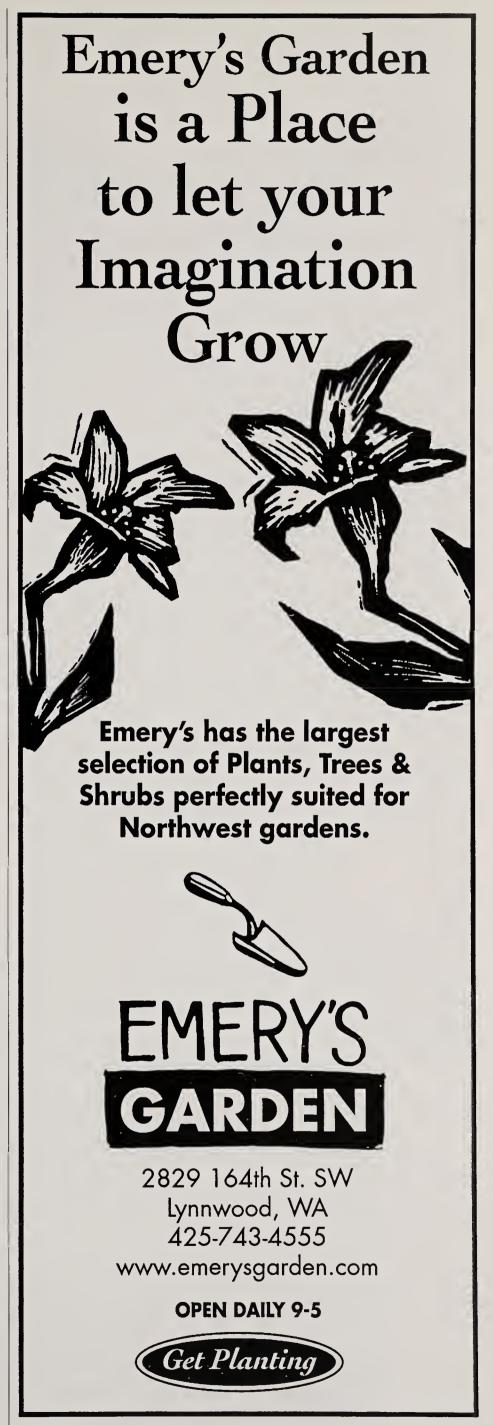
Follow the path as it curves around to the right. Can you recognize some of the native plants you have just learned about?

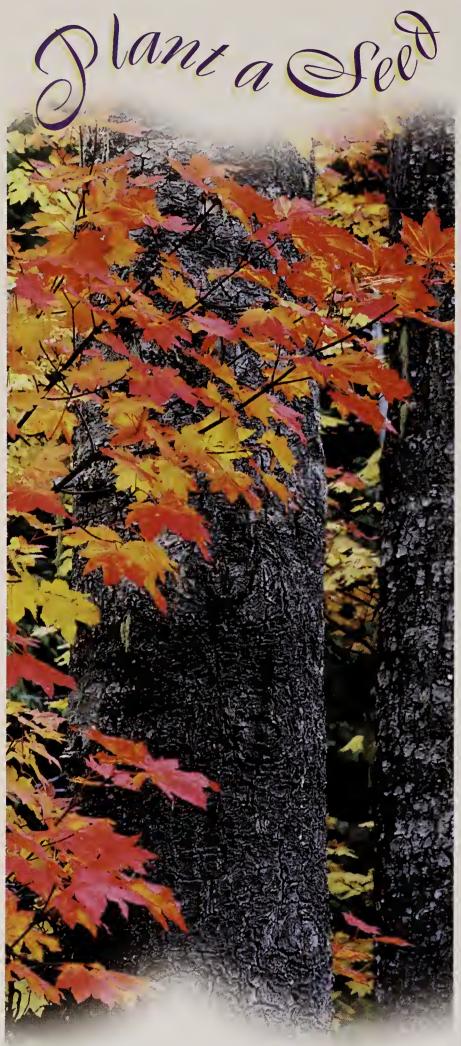
Go down the steps, then turn around and face them. On the left side is another thicket-forming shrub, thimbleberry (*Rubus parviflorus*). Although related to salmonberry and blackberry, thimbleberry stems do not have prickles. The large, soft, maple-shaped leaves are finely fuzzy on both sides. Large, white flowers resemble single roses in spring and summer, followed by edible raspberry-like fruit.

Now take the new trail to your left (as you face the steps). Follow it as it curves to the left away from the Witt Winter Garden. There will be a small trail to your left, then another larger trail forming a Y. Stop at the Y. Directly in front of you is another shrub with holly-like leaves, but it is much taller than the low-growing Oregon grape you saw before. This is tall Oregon grape, *Mahonia aquifolium*; *M. nervosa* is on the right side of the path, so you can easily compare them.

Now go down the larger path into the Woodland Garden, passing the bench on the left, and across the bridge. Take the path to the left, passing steps on your right and stopping at the mossy bench. As you face the bench, in front and to its right you will see two more red-flowering currants, *Ribes sanguineum* 'King Edward VII'. Selected for its particularly dark red blossoms, this cultivar was propagated from a plant found in a garden in England, where it has been grown and admired for generations. Red-flowering currant is popular with hummingbirds; scientists believe that it and salmonberry co-evolved with rufous hummingbirds, whose northward migration is timed to the blooming of the shrubs.

(continued, next page)





With a Request

Plant a seed for future generations by making a bequest to The Arboretum Foundation in your will.

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Call 206-325-4510 for more details.

Continue along the path, looking toward the pond on your left. The large deciduous shrub arching out over the pond is Pacific ninebark, *Physocarpus capitatus*, which is often found along Puget Sound waterways. The brown, shredding bark appears to have many layers. Tiny white flowers are in dense, rounded clusters, followed by reddish seed heads that are equally attractive.

Follow the path past a large clump of tall Oregon grape on your right, go to the road, and turn left. Walk toward the Woodland Garden parking area, where you will take the path to the left. Walk up the steps on your right, then go right on the next trail (not up the other steps).

Take the first left. About 15 yards down the trail, on your right, you'll see a big patch of salal, and behind it a large deciduous shrub with many stems. Red-osier dogwood, *Cornus stolonifera*, has bright red young stems, especially after a frost and when it's in its leafless winter stage.

Continue on the path to just past the steps. Turn left on the path just past the steps, and then look immediately left to find oceanspray, *Holodiscus discolor*. This deciduous shrub has dull green, coarsely toothed leaves that have a reddish tinge in the fall. Tiny white to cream flowers are held in large, fluffy, lilac-like clusters.

Head back to the Winter Garden, and take the right-hand path to return to the Graham Visitors Center.

Lynn Schueler is a volunteer at the Arboretum Foundation's Pat Calvert Greenhouse and is a member of the Foundation's Native Plant Study Group. She uses native plants mixed with exotics in her small garden in West Seattle.

Show and Tell

Slide Shows, Videos, & Speakers

Members of the Arboretum Foundation may obtain a speakers list or borrow slide programs and videos for a small fee. For ideas and availability, contact the Foundation.

Show

Arboretum Foundation Units, staff, and Study Groups enjoy and learn from the many slide shows available from the Arboretum Foundation. Shows are produced by talented volunteers such as internationally known plant, garden, and wildlife photographer Joy Spurr.

slide shows have been prepared for Units and Study Groups to rent. They come with scripts or plant lists (that you may duplicate), so you have a complete program. Among the topics are: Arboretum Awareness, Heaths & Heathers, Hostas, the Japanese Garden, Wildflowers, Winter-Blooming Plants, Late Winter-Blooming Plants, Hardy Cyclamen, Let Good Bugs Work for You, Leaves, Rhododendrons I & II, Pacific Northwest Trees: Conifers and Deciduous, Landscape with Native Plants, Leaves, Myrtle's Garden, Perennials in Your Garden, and Annuals.

VIDEOS FOR RENT: "Tour the Washington Park Arboretum"; "Perennials" (a slide show on tape).

BELOW: The kiosk at the Visitors Center offers a quick show-and-tell of Arboretum highlights.

Brochures and guidance await you inside.

Tell

When your group or unit wants someone to speak about any aspect of woody plants or Washington Park Arboretum itself, you can rely on the Arboretum Foundation.

Experts will present topics to Foundation members and others who qualify. Some charge a fee, which frequently is donated back to favorite Foundation programs, committees, units, or study groups.

Speakers include supporters of the Foundation, staff and faculty of the University of Washington and Washington State University, nursery owners, and other specialists.

You can also arrange for a visit from the director of the Arboretum, the executive director of the Arboretum Foundation, and staff members, who will speak at community events concerning the Arboretum. They focus on how the Arboretum works and what's ahead in the future.

Some speaker topics include: Bulbs, Clematis, Container Gardening, Fall Color, Azaleas, Birds, Landscape Design, Landscape Maintenance, Rock Gardens, and the Library at the Center for Urban Horticulture.



Tov Spuri

31

Visit the Elisabeth C. Miller Library

Library for the Arboretum

BY BRIAN THOMPSON

short distance from Washington Park Arboretum, you can visit another treasure for horticulture enthusiasts. The Elisabeth C. Miller Library, at the Center for Urban Horticulture, is one of the outstanding horticultural libraries in the country, and it is open to the public.

Whether you are a landscape professional, a gardening enthusiast, or a first-time visitor to the Arboretum, the Miller Library has many services and resources to help you learn more about the world of plants.

For example, if you are intrigued by a tree in the Loderi Valley, visit Miller Library to read about its culture, origins, or natural history. If there is a shrub in the Witt Winter Garden you must have in your landscape, the library staff can show you how to find a source. You can browse among the new books in the pleasant surroundings and then return to the Graham Visitors Center to buy your favorites. Or come see the most books gathered together in one place on any gardening topic, and then request the most useful from your public library.

New to gardening? The Library's lists of recommended books and other resources will help you get started. Already have two green thumbs? Among the many magazines, newsletters, and journals, you'll find something that matches your interests. Whatever your level of expertise, you can take books or videos home from the large lending collection, or use the library's website as your guide to horticulture on the Internet.

Services

The Miller Library is open to the general public without charge, and all collections are available for use within the library. Open hours include Monday evenings and Saturdays. If you have a question about any aspect of horticulture, the library staff will either find an answer or refer you to an appropriate authority.

Any visitor to the Arboretum, as well as staff, volunteers, and Arboretum Foundation members, can make use of these services in person, by phone, or via e-mail. If you are planning a program for your Foundation Unit or for any organization or class that studies the cultivation of plants, contact the Library about scheduling a free tour of the facilities.

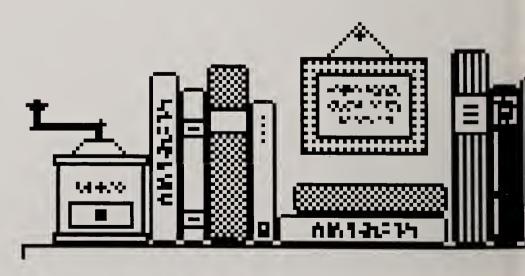
Collections

The heart of the Miller Library is a collection of over 8,000 books on gardening techniques, selecting and growing ornamental plants, vegetable and herb gardening, pests and diseases, garden design and history, gardens to visit, horticulture in an urban environment, botany and plant ecology, and native floras from around the world. Internet access to the catalog of these books is available.

A lending collection provides over 1,000 books and 40 videos, which include many of the more popular gardening titles. You can register and join more than 1,800 library patrons who have already signed up.

About 300 subscriptions provide a range of resources: magazines for home gardeners to journals for researchers. Over 100 newsletters from regional garden clubs and arboreta round out the collection.

CD-ROMs and on-line electronic services are available for use on the Library's multimedia public computer terminals. These include plant selection and landscape design programs, gardening encyclopedias, photo collections, plant source finders, and indexes to



The Miller Library has the most extensive publically accessible horticultural library collection in the Northwest.

horticultural periodicals. Access to the Internet is also provided, including the Miller Library's Directory of Horticultural Web Sites.

Nearly 1,000 current wholesale and retail nursery catalogs are filed by name and indexed by subject to help you with plant shopping. About one-third of the catalogs are from companies in the Pacific Northwest.

The Library has a large collection of folders, arranged by subject, that include pamphlets, copies of magazine articles on popular topics, and newspaper clippings. The emphasis is on local information, much of which is not easily found in book format. In addition, find brochures from gardens and arboreta to visit in the Northwest and around the world.

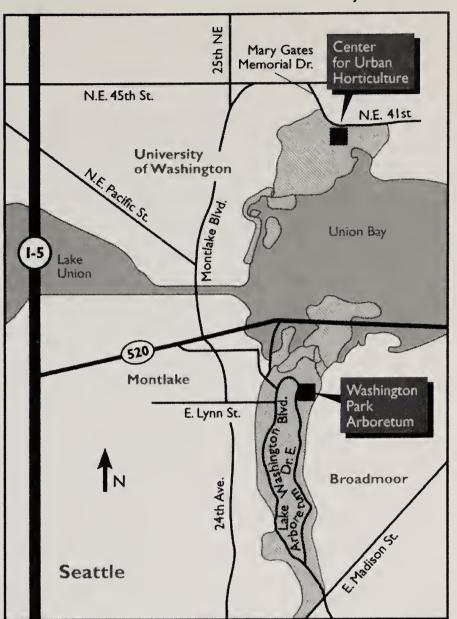
Special collections include old and rare books, books for children and those who teach children, directories of professional horticultural organizations, and much of the archival information for the Arboretum.

We Invite You to Visit

When you visit the Arboretum, have a gardening question, or would just like to browse some beautiful books, do include the Miller Library in your plans. While there, you can view the gardens at the Center for Urban Horticulture or explore trails through the nearby Union Bay Natural Area. Or just relax in the comfort of the library's cozy chairs and explore the many offerings. After spending time at the Miller Library and across Union Bay in the Arboretum, you'll appreciate what a rare combination of horticultural riches you can find in the middle of Seattle.

Brian Thompson is a librarian at the Elisabeth C. Miller Library.

Locate the Miller Library



Miller Library Center for Urban Horticulture

3501 NE 41st Street Seattle, WA 98195-4115

Open

Monday: 9:30am-8pm
Tuesday through Friday: 9am-5pm
Saturday (except July and August):
9am-3pm

Contact

Voice: 206.543.0415 Fax: 206.635.2692 Email: hortlib@u.washington.edu/ Web: depts.washington.edu/hortlib/

33

A Bird's-Eye View

BY REC

AZALEA WAY was once a logging path to Lake Washington. This three-quarter-mile stroll was then designed by the Olmsted Brothers firm to be the current promenade. In spring, it showcases flowering Japanese cherries, rhododendrons, and Knapp Hill and Exbury azaleas.

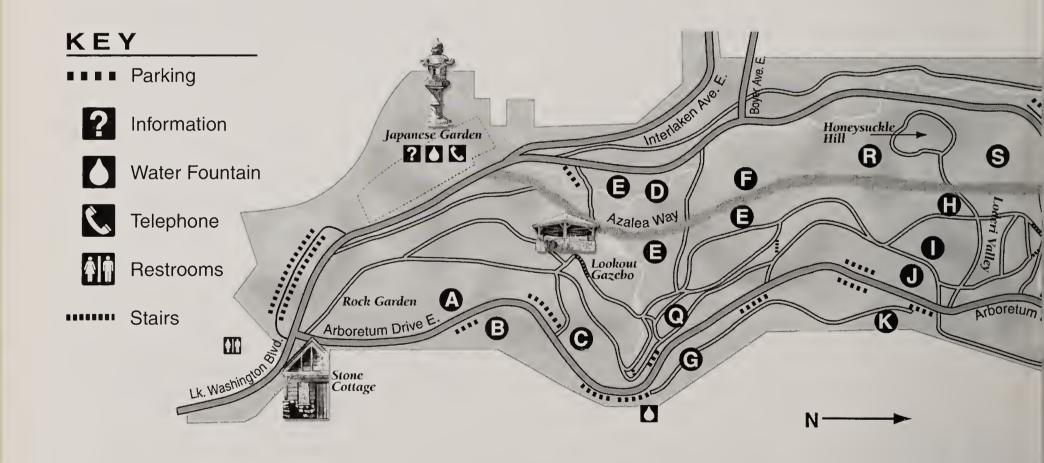
THE BRIAN O. MULLIGAN SORBUS COLLECTION is one of the largest collections of mountain ash in the United States. In spring, these trees and small shrubs blossom, and in the late autumn they produce an outstanding variety of fruit color. The 104 accessions include 81 taxa.

CONIFER MEADOW is south of the SR 520 bridge, bordering the Montlake neighborhood. It contains maturing cultivars of conifers and trials of new crabapple introductions that are being observed in order to select the best performers for Northwest gardens.

FOSTER ISLAND is well known as the home of many permanent and migratory waterfowl and mammals. WPA tree collections are prominent throughout. It is surrounded by wetlands and is a major study area for ecologists.

SEATTLE'S JAPANESE GARDEN is an exquisite stroll garden of the formal *shin* type and one of the most authentic Japanese gardens to be found outside Japan. The garden was designed in the sixteenth-century Momoyama style by Mr. Juki Iida. A *shin* garden is characterized by the artful placement of stones, trees, lanterns, streams, ponds, shrubs, bridges, and myriad flowers and moss.

THE JOSEPH A. WITT WINTER GARDEN displays plants that are prominent from November to March. Landscape designers and home gardeners can observe eye-catching barks after leaf fall; trees and shrubs that are important for their winter structure; and weekly changes in flowers and foliage, many with exciting fragrances and colors. Come back in other seasons to see how these plants perform throughout the year.



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DENNIS

LODERI VALLEY is nestled among the winding trails of magnolias and conifers. This bowl-shaped area showcases a prominent collection of large-leaved rhododendrons named for the English rhododendron breeder, Sir Edmund Loder.

THE MAGNOLIA COLLECTION cultivates a wide and diverse range of this genus, which thrives in the Northwest climate. The Collection is considered to be a taxonomic landscape because it focuses upon the *Magnolia* genus. The Arboretum has 97 different taxa (species or cultivars) of magnolia.

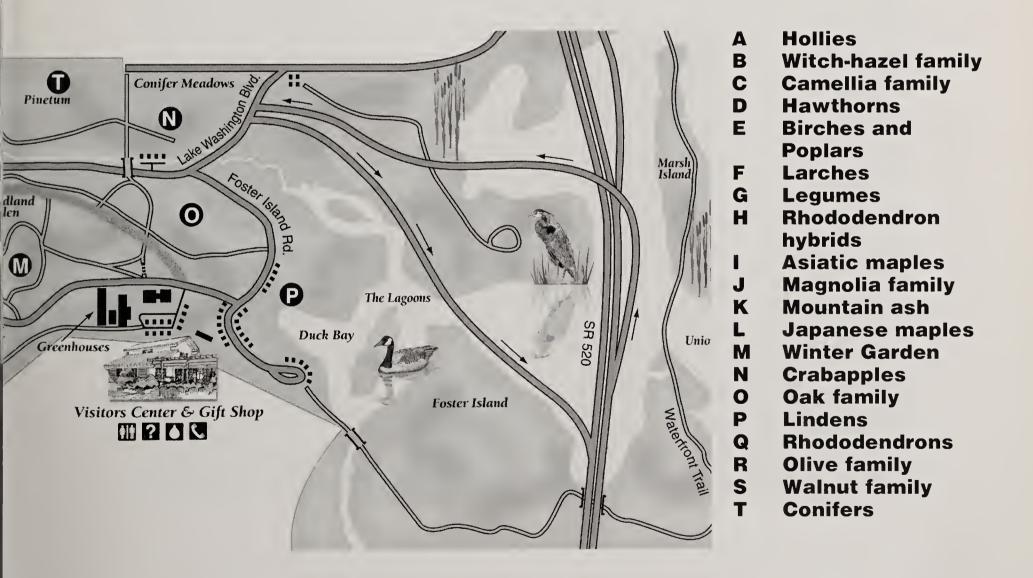
THE NEW ZEALAND HIGH COUNTRY EXHIBIT represents Arthur's Pass on the South Island and contains a collection of New Zealand's native plants that thrive in the Pacific Northwest environment. It is an example of an ecogeographic garden.

THE PINETUM is on the west side of Lake Washington Boulevard. Admire many young trees that have replaced older specimens lost to storms and age. Specimens of some of WPA's oldest and largest conifers tower alongside the new plantings.

THE PUGET SOUND RHODODENDRON HYBRID GARDEN includes 78 cultivars, excluding six cultivars and species in the Roman Memorial. The early section consists of 31 cultivars, and the middle section, 28. The contemporary section features 19 cultivars.

RHODODENDRON GLEN is on one of the largest hillside valleys of the Arboretum. Find an active year-round stream, a large collection of species and hybrid rhododendrons, and a small pond surrounded by heaths and heathers and a variety of Ericaceous plants.

THE WOODLAND GARDEN and its surrounding valley contain more than 170 cultivars of Japanese maples—the largest such collection of any US public garden. Other fascinating maples also line its paths to reveal tapestry-like barks, from green and white stripes to mahogany sheens. Its two ponds, renovated in the 1990s, are rest stops for many visitors.



One of WPA's oldest living accessions is *Gymnocladus dioicus* (Kentucky coffee-tree), a shade tree known for eight-inch purplish-brown pods and winter bark.

Arboretum Programs for All Ages

BY JULIE DEBARR & THOMAS D. SMARR

ashington Park Arboretum offers horticultural programs for adults and children.

Adult Education Programs

Adult education programs serve everyone, from beginning home gardeners to horticultural professionals. You can enjoy lectures, courses, demonstrations, studios, and symposia. Tours are also available on site and locally, regionally, nationally, and internationally. Most programs are held in the Arboretum or at the Center for Urban Horticulture (CUH), which is responsible for the Arboretum's management.

The Arboretum's education department creates experiences that provide new and interesting information in the fields of horticulture and ecology. It seeks to connect learners of all ages to the diverse and splendid world of plants.

ARBORETUM PLANT STUDY PROGRAM: The ongoing study program focuses on a different set of trees, shrubs, vines, and ground covers in the Arboretum. It includes field work on plant identification and discussions of plant selection, placement, and function within the urban environment. Plants are studied during the season of their most distinguishing characteristics (flowers, fruits, etc.).

GARDEN CONSTRUCTION DEMONSTRATIONS: Seasonal demonstrations teach homeowners the skills needed for completing a variety of garden projects independently, such as building fences, patios, and arbors. Each session includes a review of the materials and tools needed, a discus-



The fifth grade students in the Arboretum's Saplings program are from Our Lady of Fatima school.

WPA welcomes 10,000 schoolchildren to its outdoor classroom, yearly.

sion of design, and a demonstration of techniques needed to complete the projects.

DESIGN STUDIO: Design studios provide the opportunity to problem solve with a top land-scape designer. Each studio focuses on a different specialized landscape and includes a brief discussion of design issues, followed by an opportunity to work on individual problems.

GARDENING AND HORTICULTURE PROGRAMS: Lectures and courses are presented throughout the year on a wide variety of topics, such as plant selection, gardening techniques, or artistic studies. Some are short evening events with slides, and others may be a series of classes with handson demonstrations.

PROP SHOP: This series teaches the skills necessary to propagate your own plants by seed, cuttings, divisions, or other methods. Classes include a brief discussion of the featured technique, when to use it, and with which plants. Classes are followed with a demonstration of the skill and then hands-on practice by participants.

special events are coordinated throughout the year at the Arboretum and nearby Center for Urban Horticulture. These include annual events, such as the Perennial Symposium, and special cooperative programs, such as the Native Plant Series, which is planned jointly with the Washington Native Plant Society. Other events may include on-site festivals or field days at either location.

walks and tours: Walks and tours are arranged for the Arboretum, Center for Urban Horticulture, and the Center's adjacent Union Bay Natural Area, as well as for private and public gardens throughout the region and abroad.

Youth and Family Programs

The Center for Urban Horticulture also conducts youth and family programs as well as community outreach activities, primarily through the Washington Park Arboretum.

Saplings School Programs

Grades K–8: School tours take place from Monday through Friday, 10am.

Grades K-2: "Discover Plants."

Grades 3–6: "The Life Cycle of a Plant: Fantastic Fall" (October and November); "Spring Sprouts" (April and May); Grades 3–8: "Plants and People of the Northwest;" Grades K–8: "Wetland Ecology."

Backpacks: K-6 and Groups or Families

Check out backpacks full of equipment, field guides, and lots of tools to help you observe, experiment on, and discover the habitats, plants, animals, and insects found in an urban wetland or forest environment.

Explorer Packs are for groups of 15–30. Topics: "Marsh Madness" and "Tree-tective."

Family Packs are free for use by Arboretum Foundation members: "Wetland Wonders" and "Family Tree."

Storyvine

Watch for announcements of the weekend program that provides families the opportunity to join a storyteller and hear about the magical and mysterious world of plants and animals.

Arboretum Adventures

A weekend program provides children ages 6–12 the opportunity to explore the natural world around them through interactive tours and handson art and science activities.

Information and Registration

Adult education: Contact CUH's Education Coordinator, 206.543.8616.

Schools and children's activities: Contact WPA's Education Coordinator, 206.543.8801.

Julie DeBarr is former Washington Park Arboretum Education Coordinator, Youth and Community Outreach.

Thomas D. Smarr is a graduate student at the Center for Urban Horticulture (CUH). He is currently the CUH Education Coordinator.

BY RANI PHOTOS

The flowers of spring are glorious, yet they can seduce us into forgetting the crucial significance of bobbles, then foliage is certainly the cloth that makes up the garment of our gardens.

The plants listed here are organized by season and include some of the best foliage plants in the A deciduous species with colorful spring foliage also have brilliant autumn leaves. Similarly, evergreen plant important to remember that while this is an accurate portrait, it is only one of the many possible picture

Spring

Acer palmatum: The new foliage of this species is always bright and glowing. Two striking cultivars are 'Marakumo', with neon-pink spring foliage, and 'Otome Zakura', with new leaves of cardinal red.

Aesculus parviflora: The hand-shaped leaves emerge shrimp-pink.

Cercidiphyllum japonicum: New foliage ranges from soft yellow through apricot and peach to pink, producing a stained-glass effect when backlit by the sun.

Fagus sylvatica: The bronze- and purple-leaved cultivars are dramatic as they emerge in spring, especially when backlit.

Neolitsea sericea: New growth of this small, evergreen tree is limp and densely covered with silky, golden hairs.

Pieris formosa: Leaves emerge flame red from this evergreen shrub.

Populus trichocarpa: Triangular, rather ordinary looking leaves emit a sweet and most extraordinary balsam fragrance as they unfold in spring.

Summer

Abies bracteata: The long, dark, lustrous needles of this species are borne densely along the branches, creating a lush appearance.

Cercis occidentalis: Beautiful coin-shaped leaves are pewter or blue-gray.

Gingko biloba: Light green, fan-shaped leaves are graceful, elegant, and unique. They are wonderful spring to fall.

Hydrangea aspera ssp. sargentiana: The very large, fuzzy leaves of this species create a nearly tropical effect.

Mahonia nervosa: The elegant evergreen native has long, pinnate leaves made up of numerous, dark, spine-edged leaflets.

Salix alba 'Sericea': Leaves of this tall willow fade to silver as the dog days of summer pass. The foliage contrasts beautifully against the slate gray trunk and branches.

Autumn

Acer japonicum: The dependable fall colors are orange, red, and purple.

Aesculus flava: The fall leaves are a glowing shade of orange, as beautiful as they are difficult to describe.

Disanthus cercidifolius: Rich, crimson autumn color appears even in shaded areas.

Liriodendron tulipifera: In early autumn, the leaves are a dappled mixture of gold, chamois, and pale green; as the season wanes, the foliage of this species becomes entirely golden.

Metasequoia glyptostroboides: In autumn, the leaves of this deciduous conifer turn a beautiful russet-brown.

Nyssa sylvatica: Screaming red autumn foliage colors are dependable from year to year. See the cover for fall leaf.

Oxydendrum arboreum: The graceful leaves of this species turn carmine red, sometimes with a hint of purple.

Zelkova serrata: The jaggedly serrated leaves turn bronze, orange, or red.

Winter

Hebe amplexicaulis: This low, spreading, evergreen shrub has small, thick, coin-shaped leaves of frosty gray.

Holboellia fargesii: The graceful, palmate leaves of this evergreen vine are composed of several lustrous, slender leaflets.

Leucothoe axillaris: On this small, evergreen shrub, foliage of the previous season becomes maroon and burgundy when touched by winter frosts.

Mahonia 'Arthur Menzies': Composed of many leaflets, the large, pinnate leaves of this hybrid produce a bold, tropical effect.

Rhododendron fictolacteum: The large leaves of this species have a fuzzy covering of chocolate-brown hairs.

Viburnum cinnamomifolium: The big, glossy leaves of this large evergreen shrub create a bold effect, especially in winter.

'll Fall For

HITCHIN

ves and blind us to the importance of foliage in successful garden making. If flowers are the sequins and

retum. However, this list presents only a single snapshot in a constantly changing display. Many of the oted for spring or summer will also carry their glittering foliage into the middle of winter. As a result, it is leaves in the Arboretum.



Photos

UPPER LEFT: It isn't fall. Acer palmatum has rich, red spring leaves.

UPPER RIGHT: Leaves of Hydrangea aspera ssp. sargentiana present tropical-like foliage to summer.

LOWER LEFT: Glowing Zelkova serrata leaves will turn colors in fall.

LOWER RIGHT: Mahonia 'Arthur Menzies' brings yellow flowers among bold leaves in late winter.

Guidebook (62:1&2)



Find Pieces of History

BY BARBARA SELEMON

Sometimes hidden, sometimes ornate, the hardscape features throughout Washington Park Arboretum are beautiful to stop and see.

Entry Gates

The most artistic work in the Arboretum (besides in the Japanese Garden) are the ornate iron gates in the Visitors Center parking lot at the north end of Arboretum Drive East. These magnificent gates were designed and installed by Seattle artist George Tsutakawa.

Lookout Gazebo

Close to the highest point of the Arboretum, overlooking Azalea Way and the large pond below, stands a circular shelter constructed by the Works Progress Administration (WPA) in 1941. The old cedar roof was replaced by steel, which intensifies the sound of rain above and provides respite for the garden stroller during rain as well as sunshine.

Benches

When on foot from Foster Island at the north end to the Japanese Garden at the south end, you will find benches scattered along the way. Some are prominently sited, as in the Winter Garden; others may be found in almost hidden coves of shrubbery. Most were installed by memorial funding, and they are built of various materials, such as stone or fallen cedar logs.

Rockscapes

Made of two-foot-thick stone walls, the Stone Cottage welcomes and charms visitors approaching the Arboretum from East Madison Street. It was built in 1937 from local resources, such as granite from Enumclaw and Douglas-fir from the Cascades. Over the years, it has housed University of Washington staff or students.

At the far northern end of the parking lot near Rhododendron Glen is an unusual stone drinking fountain, a memorial to Maude Sawyer.

The Wilcox Footbridge, which spans Lake Washington Boulevard near the Arboretum's northwest corner, was built of granite in 1911. A stroll across this historical walkway, especially at dusk when the lights are on, seemingly transports busy urbanites to another era.

In the 1940s, funds and labor supplied by the Works Progress Administration accelerated completion of WPA.

Boulders of basalt from nearby Washington mountains also boldly adorn the Woodland Garden ponds as well as the Rhododendron Glen stream beds. They anchor the shores of the water features and provide a diversion from the many plants surrounding them.

Building Structures

University of Washington and Arboretum Foundation staff offices are located at the north end of the Arboretum, in the Donald Graham Visitors Center. Inside are also meeting rooms and a gift shop. Outside this building are benches in a courtyard. To the northwest of the Visitors Center is the revamped barn that holds the maintenance facility (upstairs) and curatorial offices.

South of the parking lot is a greenhouse, utilized by plant meeting groups, Arboretum Foundation work groups, and public education classes. Behind this structure is the smaller Pat Calvert Greenhouse, staffed by Arboretum Foundation volunteers.

Japanese Garden

Within the Japanese Garden stand symbolic features such as the Japanese Tea House, the Emperor's Gate, and the Kobe lantern. In a small space, you can immerse yourself in the beauty of art provided by these features adorning the landscape.

Barbara Selemon is Plant Propagator for Washington Park Arboretum.



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Photos

OPPOSITE PAGE: A stroller with a stroller heads over Lake Washington Boulevard via the Wilcox Footbridge. Below: The Lookout Shelter has a view of Azalea Way.



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41

Become an Arboretum Volunteer

Learn as You Help WPA
BY ELAINE ANDERSON

ou'll find many reasons to volunteer for Washington Park Arboretum (WPA) and the Arboretum Foundation (AF)—the nonprofit group that supports WPA with fund raising and volunteer services.

All types of people volunteer, but they have one thing in common—a passion for plants. Both experienced and inexperienced plant lovers alike are welcome. You'll receive training and plenty of support from staff and veteran volunteers.

Through its rich and varied volunteer program, the Arboretum provides you with the opportunity to work outside or indoors and to learn, create, and make a difference in our shared environment. As an Arboretum volunteer, you'll sharpen your skills, learn new ones, meet likeminded people, increase your knowledge of horticulture, enhance your leadership abilities, get a behind-the-scenes look at the Arboretum, and have fun. You'll also receive *The Volunteer Vine*, invitations to quarterly volunteer meetings that feature entertaining and informative guest speakers, and notices of special outings and recognition events.

So, explore the many ways you can learn, do good deeds, and have fun. Whatever you choose to do, you'll be surrounded with living, breathing, green-growing things to lift your spirits. You'll also meet others who believe that plants are essential to the well-being of our planet and its inhabitants.

Work with Plants

If you enjoy a hands-in-the-soil relationship with plants, the following may be for you.

GROUNDS WORK PARTIES: Here's your chance to work side by side with the Arboretum grounds crew. You'll get to weed, mulch, water, and plant. There are never enough hands to do all the work, so why not volunteer yours?

PAT CALVERT GREENHOUSE: Grow plants from seeds or cuttings from the Arboretum's collection of trees and shrubs. Greenhouse volunteers are the only non-staff gardeners allowed to take cuttings from the collections.

PLANT DONATIONS DEPARTMENT: Plant Donations volunteers work with the plants donated by area gardeners. You'll have the opportunity to work with everything from trees to herbs.

PLANT CURATOR ASSISTANT: Assist the plant registrar, indoors and out. You'll work in the office preparing labels. Then you'll set out, map in hand, to affix them to the proper plants. It's a great way to explore the Arboretum grounds and learn about its plants.

Become a Guide

Do you enjoy meeting the public and imparting your knowledge to others?

TOUR GUIDE: Become a tour guide, and share your enthusiasm with weekend visitors or with special groups at other times.

SAPLINGS GUIDE: Gain and share a child's-eye view of the Arboretum when you volunteer as a Saplings guide. Conduct school tours in the spring and autumn.

Greet the Public

visitors and Guests: Become a Graham Visitors Center receptionist. Answer questions, make suggestions, and share your delight in the Arboretum. You'll also provide assistance to telephone callers.

GIFT SHOP: If you've visited the Arboretum Foundation Gift Shop, you already know what a creative, colorful, and tempting place it is. Now, imagine working there.

Help with Special Events

Special events are lots of fun. Use your skills, or indulge your interests to help with Foundation programs, plant sales, and garden tours.

Assist in the Offices

bers while having a behind-the-scenes view of day-to-day operations at the Foundation. Help with the office tasks that keep things running smoothly. Office assistants help file, copy, collate, mail, and more. If you are computer savvy, assist with data entry and compiling reports.



Volunteer Suzy Tozer awaits buyers at FLORAbundance—the Arboretum Foundation's annual plant sale.

HORTICULTURE OFFICE: Volunteers help keep records organized and up to date for the University of Washington Arboretum staff.

Join Study Groups and Units

STUDY GROUPS: Focus on a particular area of horticulture by joining a Study Group. Groups study different areas of plant life, such as native plants and natural crafts. Whether you're a budding plant lover or have years of experience, you'll be welcome.

UNITS: How do Units differ from Study Groups? In addition to increasing their knowledge of horticulture, Unit members support the Arboretum with fund-raising projects, volunteerism, and educational programs.

Choose Your Volunteer Job

What else would you like to do? Write for one of our publications? Use your carpentry skills?

What about using your talent in the area of graphic design or other professional skills? All talents—from writing to carpentry—are for a wonderful cause: stewardship of the Arboretum. As a bonus you'll help others discover its treasures.

Each year, nearly 1400 individuals volunteer on behalf of the Arboretum. In addition to this number are the dozens of volunteers who add their time and energy as part of a service group. It is safe to say that the Arboretum would not be the Arboretum—indeed it would quite likely not exist at all—without its volunteers.

This guidebook is an excellent way to make the acquaintance of Washington Park Arboretum. Now, turn that acquaintance into a friend. Get to know us by joining our volunteer family. Call now. We look forward to working with you.

Elaine Anderson is the Volunteer Coordinator for the Arboretum Foundation.

Guidebook (62:1&2) 43



WPA's Smallest Garden

See the Signature Bed by car or by foot.

he Signature Bed is a small display garden with a big job to do: It welcomes thousands of visitors yearly to the Arboretum's Graham Visitors Center. In a narrow, elevated space on the west side of the Visitors Center, the highly visible Bed commands the attention of visitors and passersby on Arboretum Drive East.

The Bed's unusual dimensions (6 x 57 feet) provide a challenge to gardeners and land-scapers and an ideal space for eliciting evocative, innovative design. Signature Bed themes have included an edible landscape, "Bold and Beautiful" tropicals, a hummingbird garden, and a Northwest Japanese garden (above).

Arboretum Foundation volunteers prepare the design, install plants, and maintain and dismantle the garden. The Foundation also contributes financially. Arboretum staff manage the Bed, overseeing soil preparation, irrigation, and pest management. The life cycle of each Signature Bed garden is October 1 to September 30.

The Signature Bed is one of many educational and volunteer opportunities available at the Arboretum. Call the Foundation office if your Unit or group is interested in participating. The brochure for any current Signature Bed is distributed at the Visitors Center.

Self-Guided Curbside Tour

ometimes physical challenges or weather prevent people from walking around Washington Park Arboretum. However, people can enjoy the collections by car: Let one person drive and one read the tour. Refer to the map in the centerfold for more information.

Lake Washington Boulevard entrance. Prepare to make an immediate right as you head north on the Boulevard past the Stone Cottage (built in 1937). Make the right-hand turn, pass the chainlink fence, and nose into the first parking lot on the right.

Note two tall trees at the southern (right) end of the lot. Unlike many arboreta, the Arboretum was developed among a matrix of native trees and shrubs. Nearest to the street is western red cedar (*Thuja plicata*); to its east is Douglas-fir (*Pseudotsuga menziesii*) with sunken bark. You'll see many other native woody plants as you wind around the Drive.

In front (east) of you is a row of *Hamamelis japonica* var. *flavo-purpurascens*, a variety of Japanese witch-hazel. They provide rich leaf color in fall and crinkly spider-like flowers in winter. Left of the witch-hazels and east (on the grass) is *Corylopsis sinensis* var. *calvescens*, from China, one of many Asian plants that thrive in this climate.

At the north end of the witch-hazels is a small grove of *Sycopsis sinensis*, another Chinese import. Across the street and south, are the Arboretum's deciduous hollies. In winter, see shiny berries on naked branches.

Leave this lot and progress north, noticing the Holly Collection sign on your left. The Arboretum has one of the top holly collections in the United States. You'll soon pass the New Zealand Garden at the edge of the road on the right. The drought-tolerant plants do well in this climate.

Turn left at the upcoming parking lot with the mossy cement barrier. About 15 feet to the right of the path and north is *Stewartia monadelpha*, known for its white summer flowers and year-round orange bark. To the right of the lot is a big, knobby *Acer macrophyllum*, native bigleaf maple.

Continue north again. In summer, admire hydrangeas right and left, and at the Rhododendron Glen sign, park again. On the north end of the lot are *Camellia japonica* x 'William's White' and *Magnolia* 'Elizabeth', with yellow spring flowers.

Across the street is Rhododendron Glen, where something blooms most months of the year.

Drive past the next parking lot, noting that near the stone barrier and water fountain is a western red cedar, which was nicked by another driver. Continue to the next lot on the left. Across the Drive, note the large tree. In spring, *Davidia involucrata* (dove tree) waves its white hanky-like flowers.

Next, find two parking lots, one on either side of the road. Park in the right one. On the left is *Magnolia kobus*; middle and right are two mountain ashes. Near the western parking lot, see cotoneaster and magnolias. On their right, standing alone, is *M. officinalis* var. *biloba*.

Prepare for something big in the next parking lot, on the right-hand side as you continue: Sequoiadendron giganteum—What bark!. To its north is a bed of Cistus, with a Judas tree (Cercis silquastrus) poking out of the middle. Further north is a bed that contains cork oak (Quercus suber), of Mediterranean origin.

As you pass the next parking lot on the right, notice a *Sorbus* (mountain ash) Collection sign down the path. Across the street is the *Magnolia* Collection.

Drive past the Loderi Valley sign, and then into the Woodland Garden lot on the left. Extreme left, at the road's edge, is the popular *Crataegus* × *lavallei* 'Carrierei'(Carriere hawthorn). It features fall color and bright red berries, interesting winter bark, and white summer flowers. Behind it, slightly hidden, is a pond and one of the top Japanese maple collections in the country. Across the street is a long row of *Tsuga canadensis*; beyond, crabapples. The crabapple selections have different color fall berries (pink, white, red, orange) and spring blossom (whites to reds).

Slow in front of the Visitors Center to see the annually changing Signature Bed (story, left), and then enter the Visitors Center lot. In the center strip are katsura (Cercidiphyllum japonicum), which explains the cotton candy smell in the fall. Near the Visitors Center entry, many wisteria grow above the plant cart, which sells plants from the Pat Calvert Greenhouse and Plant Donations Department.

Guidebook (62:1&2) 45

Self-Guided Japanese Garden Tour

BY CAROLANN FREID

LOCATION: The Japanese Garden is located at the south end of Washington Park Arboretum near the junction of Lake Washington Boulevard and Arboretum Drive East.

OPEN: March 1 to November 30. Call for hours.

ADMISSION: \$2.50 for adults; \$1.50 for children, students and seniors.

GIFTS: Postcards, plant list, tee-shirts, pamphlets, and posters are available at the ticket booth.

TOURS: Docent-guided tours are available by prior arrangement. Call the ticket booth for more information: 206.684.4725.

SELF-GUIDED TOURS: Available on cassette for \$1.00.

DEMONSTRATIONS: Chado, the tea ceremony, is presented free by Shoikai, Friends of the Tea House, on the third Saturday of the month, April through October, at 1:30pm. The Urasenke Foundation presents programs in Chado for the public that include: Spring Flower Viewing Tea, Midsummer Moon-Viewing Tea, and Autumn Brocade Tea Gathering.



ABOVE: In spring, the *Wisteria floribunda* arbor is a popular stopping point in the Japanese Garden. Opposite page: Fall color from Japanese maples is stunning by the Japanese Garden lake.

The original Teahouse, a gift of the City of Tokyo, was constructed by traditional Japanese craftsmen and arrived in Seattle in 1,500 pieces.



he Japanese Garden is a stroll garden, based on designs popular in Japan during the late sixteenth and early seventeenth centuries. Lovely though it is, only sixty percent of the Garden's core was ever finished. The Japanese Garden Unit and its partners are committed, however, to seeing the vision of its designer, Juki Iida, finally completed. As the Garden evolves, it continues to stun us with its beauty, while offering an elegant and peaceful contemplative space. Come visit.

(continued, next page)

Guidebook (62:1&2) 47

nter the Japanese Garden past the ticket booth, through the South Gate. Notice the dry stream, *karensansui*, on your right. It features the snow-viewing stone lantern, *yukimi-doro*. At the next intersection you see a tall stone lantern known as *todo gata*.

Take the path to the right. Proceed past rhododendrons, azaleas, and camellias until you reach the pond. Here a rocky peninsula juts out. You probably can see brightly colored carp (koi) in the water, and there is a small lantern, "lighting wild geese" (misaki gata), at its tip.

Proceed along the shore past red pines, mugho pines, and black pines until you arrive at the Emperor's Gate. Note the pruning of these pines, which suggests the effects of an ocean wind blowing on them. In this area, also note the formal aspects of the Garden, suggested by upright standing black pines. The pond view suggests an inland sea: the harbor and a tall stone lantern, todo gata.

Two bridges connect Middle Island, *makajima*, to the eastern and western shores. The first bridge is the earthen-like *dobashi*, and the far one is a zigzag wooden plank structure, *yatsuhashi*. Move on to see Turtle Island on the left, built somewhat in the implied shape. On a sunny day, you might see live turtles sunning themselves on a flat rock.

At the wisteria trellis, the path divides to allow a choice between two crossings: Take either the wooden bridge or a stepping stone over the outflow water from the pond. Turn left at the next trail, and walk along a paved walk of alternating patterns, *nobedan*.

This area suggests a fishing village. The stone wall represents low-lying mountains, and the stone lantern, omokage gata, marks the entrance to the harbor. Continue to the end of the pavement; on the right is a black pine, Pinus thunbergii (circa 1905), transplanted from the garden of the father of Richard Yamasaki (contractor of the rock work).

Continue on the path past plantings of evergreen oaks, Quercus nubium, to the right, and Q. myrsinifolia, left. The nearby garden shelter, azumaya, is constructed mainly of sugi (Cryptomeria) and western red cedar (Thuja plicata). Go down past an orchard of flowering cherry trees and crabapples to the moon-viewing stand, which was built over the water near a Pinus

densiflora. From this spot, notice two stone lanterns: one of them, tachi yukimi, rises vertically from the water near Turtle Island. Ahead is another view of the rocky cape.

Resume walking towards the tea house, and stop at the white cherry, *Prunus* 'Shirotae', planted in August 1960 by the Emperor of Japan. On the left of the path near the water is a white northern birch, *Betula pendula*, planted by Japan's empress.

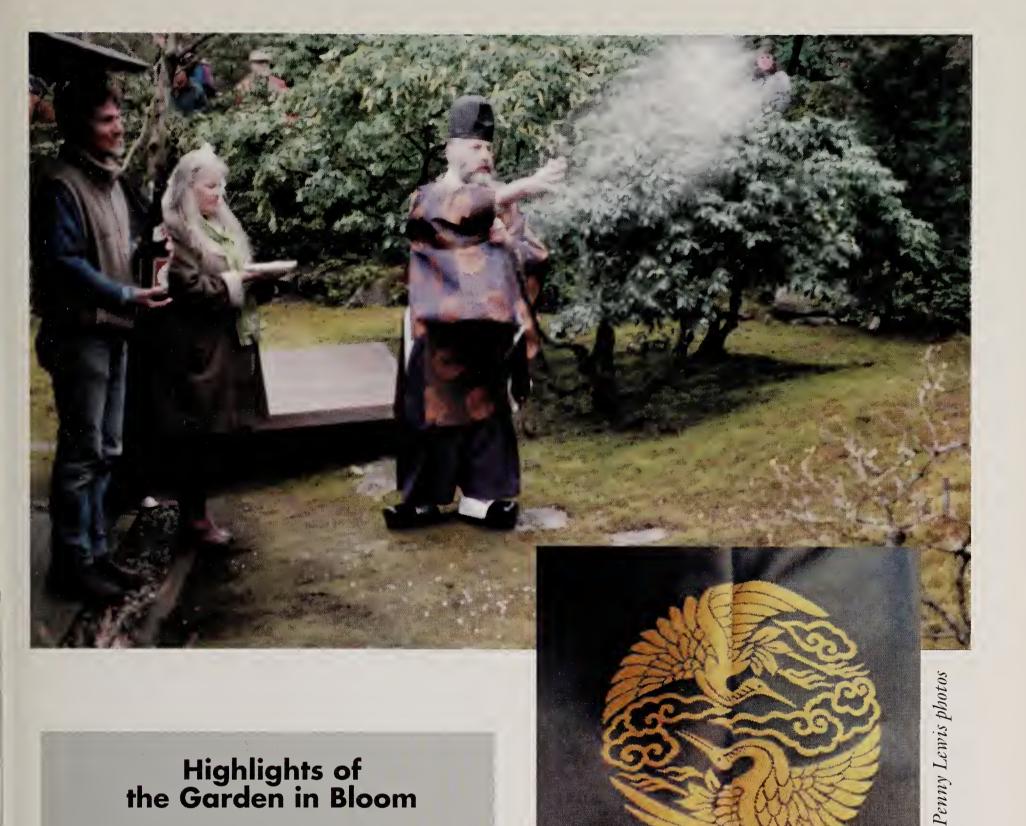
Continue on the lower path past the entrance to the tea garden, *roji*. On the right is its waiting area, *machiai*, and the tea house is to the left. The name of the tea house is *Shoseian*, Arbor of the Murmuring Pines. On your left, is another snow-viewing lantern, *yukimi doro*. Climb up the stone steps. Turn to your right while ascending the steps for another view of the tea house. Next, turn up the steps to the left toward the waterfall; it cascades over the largest of 600 rocks brought from the Cascade mountains near Bandera to form the foundation of the Garden.

At the edge of the steps, look past the waterfall to catch a glimpse of a Korean stone pagoda, *zyvisso to*. The placement of the pagoda is designed to create the illusion of a monastery at the top of a distant mountain peak.

Finally, descend the path over a stone bridge, which heads toward the entrance gate. The bridge traverses the second of the two streams that feed the lake.

Exit the garden where you entered. On the way to the parking lot, pass an empress tree, *Paulownia tomentosa*, planted in memory of James Fukuda, who helped immensely during the Garden's construction.

Dr. Carolann Freid is a member of the Japanese Garden–Prentice Bloedel Unit. She's served as a guide for the Japanese Garden, a Unit president, and chair of the Japanese Garden Advisory Council. She acknowledges the work of Leroy Collins, a founding member of her Unit (now deceased), for providing the basis of this popular tour.



Highlights of the Garden in Bloom

FEBRUARY: Cornus mas (Cornelian cherry), Osmanthus

MARCH: Camellia, winter hazel, Rhododendron sutchuenense, Pieris japonica, Magnolia species, Corylopsis, Lindera

APRIL: Evergreen azaleas, Prunus species (flowering cherries), Rhododendron cultivars, Enkianthus, Malus (crabapples), Magnolia, Camellia

MAY: Rhododendron, deciduous and evergreen azaleas, Wisteria, Styrax, Pachysandra, Iris, Viburnum

JUNE: Iris, evergreen azalea (Rhododendron macrantha), water lilies, Hosta, Hydrangea

JULY: Clethra (summer sweet) AUGUST: Liriope, water lilies

SEPTEMBER: Camellia sasangua, Acer palmatum (Japanese maples)

OCTOBER: Camellia sasanqua, Japanese maples

NOVEMBER: Camellia sasanqua, Osmanthus

High Priest Reverend Koichi Barrish throws rice during the Shinto ceremony opening the Japanese Garden during its fortieth anniversary. The inset reveals a close-up of his kimono design.

49

Look for Arboretum Wildlife

BY IDIE ULSH

he Arboretum, especially Foster and Marsh Islands, is a vital refuge for wild life. These areas and the Union Bay Natural Area (directly across Portage Bay at the Center for Urban Horticulture) are the most significant migrant bird passageways in western Washington.

BIRDS: Many warblers return to the Arboretum in spring after long flights from their wintering grounds. The males, immediately upon return, burst forth into song to attract a mate and begin a family. The Wilson's and Yellow Warblers have spent their winters in western Mexico or Central America. The Common Yellowthroat is probably returning from southern California, while the Rufous Hummingbirds, Bullock's Orioles, and Black-headed Grosbeaks have spent their winters in western Mexico. The most spectacular migratory birds, however, are the swallows and Swainson's Thrushes, which fly all the way back from northern South America.

Birds migrate in order to follow a food source, mainly insects, which is the most common diet of warblers. While at the Arboretum in spring and summer, they provide a great service in helping to control the insect populations. Their songs and beauty are a wonderful bonus. Though birds are perhaps the most visible animal at the Arboretum, many other beautiful creatures await your notice.

DRAGONFLIES: The beautiful dragonflies and damselflies are hard at work keeping the mosquito population down in Arboretum ponds. The very large turquoise and black dragonflies are called darners, the smaller red ones are in a family called sympetrums, and the ones with black bands on their wings are most likely in the skimmer family. The very small damselflies are usually black with blue or brown markings. They are distinguished from the dragonflies as they rest: They fold their wings back along their bodies rather than out to the side.

BUTTERFLIES: Butterflies are common in the Arboretum, and at least 15 of the 24 species occurring in Seattle can be seen throughout a summer. The tiny blue butterfly "puddling" on muddy areas of the trails is most certainly a Spring



Joy Spur



Photos

TOP: Two turtles sun themselves in the Japanese Garden.

воттом: Volunteers prepare seed for bird wreaths sold during Greens Galore.

OPPOSITE: Anise Swallowtail (top) and Lorquin's Admiral (bottom) butterflies can be found in the Arboretum.

WPA hosts 49 migrant and 51 resident bird species and is rich in wildlife.



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Bats take over mosquito control at dusk.

Each of these creatures, along with the trees, shrubs, and other plants, is an integral part of the ecosystem. In some way they each play a role in the health, vitality, and beauty of the Arboretum. Human observers have the privilege of enjoying that end result.

Azure. The Western Tiger Swallowtail is the largest and possibly the most frequently seen, but other equally common visitors are the Purplish Copper, Gray Hairstreak, Cabbage White, Mylitta Crescent, Milbert's Tortoiseshell, Red Admiral, Lorquin's Admiral, and Woodland Skipper.

Among the trees in the main part of the Arboretum, the Mourning Cloak, Satyr Comma, Pine White, and Lorquin's Admiral are most likely to be found. Some of these butterflies actually use the trees in the Arboretum as their host plants (food for caterpillars), most notably the Western Tiger Swallowtail, Mourning Cloak, and Lorquin's Admiral, which use willow, cottonwood, cherry, or birch. The Pine White uses pine or fir trees, whereas the Brown Elfin has probably laid her eggs on the salal. If you don't see butterflies, you may be looking only for the large, flashy ones like the swallowtails, so think small and look inside flowers to find many more. Washington butterflies and moths are considered to be the third most common pollinator of plants— behind bees and wind.

TURTLES: As field trips lead out to the water's edge, the turtles are always a delight for children. The two species most likely seen will be the Redeared Slider and the Painted Turtle. The Slider is easily distinguished from the Painted by a red patch behind its eye. Both of these species are introduced rather than native. Any salamander seen will probably be the Long-toed Salamander.

Idie Ulsh is a former president of Seattle Audubon Society and a cofounder of the Washington Butterfly Association. She is a WPA guide, an educator, and a freelance nature photographer.



Guidebook (62:1&2) 51

Find Yourself Some Cool Bloomers

BY RANDALL HITCHIN

t first glance, the idea of a winterflowering plant seems absurd. After all, why would any species evolve to flower at the time of year when its delicate floral structures would be exposed to freezing temperatures and desiccating winds? Why would any plant bloom at the time of year when pollinating insects and birds are few and far between? It just doesn't make sense. Or does it?

Like any good riddle, the answer is hidden in the question. In natural plant communities, there is a tremendous advantage in being the only species in flower. If none of its associates are in bloom, then the flowering species is the center of pollinator attention. And more pollinator attention means increased pollen transfer, greater seed set, and an increased chance of survival for the species.

To overcome the problem of the elements, most winter-flowering plants have evolved very small flowers with greater resistance to cold, dry conditions. However, tiny flowers are also less noticeable. To solve this problem, many winter-flowering species have adapted to have very fragrant flowers that attract pollinators with their scent. And in the end, what initially seemed like a silly idea turns out to be an elegant solution to the age-old problem of how to attract the bees.

All of the species presented here and many other plants of winter interest are in the Washington Park Arboretum's Joseph A. Witt Winter Garden. Bundle up and go see for yourself.

Chimonanthus praecox: In the middle of winter, the creamy-white flowers of this deciduous shrub produce a deliciously sweet fragrance.

Camellia sasanqua: In late fall and early winter, this evergreen shrub produces cup-shaped flowers of white or pink.

Corylopsis pauciflora: Primrose-yellow bells dangle from pendant spikes in late winter.

Cornus mas: This small, deciduous tree is densely covered with clusters of small, soft yellow flowers in late winter.

Erica x darleyensis: Flowers of this dwarf, evergreen shrub are tiny and bell-shaped, ranging from white through deep rose.

Garrya x issaquahensis: The flowers are held in pendant spikes that drape this evergreen shrub in silvery, cascading streamers.

Lonicera standishii: A deciduous shrub with white flowers, it is highly scented of lemon oil.

Hamamelis x intermedia: Small, spidery flowers are sweetly fragrant, and range from soft yellow through orange-red to burgundy.

Jasminum nudiflorum: Bright yellow flowers are star shaped on this low, cascading shrub.

Mahonia x 'Arthur Menzies': It is a regal, evergreen shrub with spikes of fragrant, lemonyellow flowers.

Rhododendron mucronulatum: Small, mauvepink flowers appear sporadically from November through February.

Sarcococca confusa: The small, evergreen shrub has tiny, intensely fragrant white flowers.

Stachyurus praecox: Pendant spikes of cream-colored flowers cascade from the branches of this large, fountain-shaped shrub.

Viburnum farreri: Bright pink, sweetly fragrant flowers are borne on bare branches in the middle of winter.

Viburnum tinus: This evergreen shrub has white flowers, often tinged with pink, appearing from November through February.

Randall Hitchin is Registrar and Collections Manager for Washington Park Arboretum.



Joy Spurr photos

Photos

ABOVE: Garrya x issaquahensis
flowers enliven the Witt Winter
Garden in February. Garrya is one of
the plant starts most requested for
propagation in the Pat Calvert
Greenhouse. RIGHT: Camellia
sasanqua 'Briar Rose' flowers surprise
the winter wanderer. BOTTOM: The
drooping flowers of Stachyurus
praecox span winter to spring in the
northeast part of the Winter Garden.





53



Caring for WPA's Plant Collections and Landscape

BY CHRISTINA PFEIFFER

ashington Park Arboretum's (WPA's) beautiful setting and naturalistic landscape impart the feeling of a wildly natural place. However, it is the unique collection of diverse woody plants and human effort that give the Arboretum this quality.

Come behind the scenes for a glimpse of the many activities that are critical to the function of this living museum of woody plants. You may learn something for your own garden.

The Plant Collections— More Than a Pretty Garden

As a living museum, the plant collections are the raison d'être of an arboretum. Since 1935, Washington Park Arboretum's plantings have developed into one of the premier woody plant collections in the United States.

For over 65 years, the Arboretum staff has gathered a unique and outstanding assembly of plants. The Japanese Maple Collection, which gives the Woodland Garden its fantastic autumn palette, is the largest public collection of Japanese maple cultivars in North America. True firs, pines, oaks, magnolias, holly, and mountain ash are among the collections that are nationally significant for their content and quality.

The Arboretum's plant collections fall into three categories:

Taxonomic collections are displayed by family or genus, such as *Acer* (maples), *Sorbus* (mountain ash), or *Ilex* (hollies).

Ecogeographic collections represent an ecological niche of a region, such as the New Zealand display, Mediterranean area, and Sino-Himalayan plantings; and

Functional landscapes are represented by collections such as the Witt Winter Garden, Woodland Garden, and Azalea Way.

Specimens gathered in the Arboretum come from temperate climates worldwide. Plant explorers in the 1930s and 1940s gathered an array of interesting, often newly discovered, plant species.

The Arboretum master plan addresses long-standing maintenance problems and allows for greater public access.

Many of these landed in public gardens, the Arboretum's among them. Over 1,000 WPA accessions were collected in the wild.

Index Seminum, the international institutional seed exchange, continues to be an important source for wild-collected seed. Plants are also exchanged with other gardens, commercial nurseries, and sometimes private gardens.

Maintaining the quality of WPA plant collections requires the addition and replacement of many specimens each year. Regular evaluations are done to monitor the condition, identification, and value of individual plants to the overall collection.

Preserved Specimens — The Non-Living Complement

The Douglas Hyde Herbarium, located at the Center for Urban Horticulture, houses herbarium specimens that document the living collections of the Arboretum. The Herbarium set provides a reference collection of what is and has been included in the Arboretum's living collection. It is an essential link in verifying the identity of collection plants and is invaluable to taxonomic research. A team of staff and volunteers works to collect, press, dry, and label the specimens. To date, over sixty percent of the living collection is represented.

Growing New Plants

Few WPA accessions come from standard nursery sources, so the Arboretum's propagation nursery is a must. The plant production nursery is located at the Center for Urban Horticulture. Since 1995, an annual average of 180 new accessions have been received. Forty percent of these came in as seed, 35 percent as cuttings from plants at the Arboretum, and 25 percent from outside sources. At any one time, as many as 750 different accessions are in the production areas.

The Arboretum propagator faces many challenges not typically encountered by commercial nurseries, which grow hundreds of plants of a kind. The Arboretum grows a few plants each of a wide variety of species, often with few or no good references on the best propagation techniques. Many plant species received from foreign countries come with little or no information about the natural history of the plants. Seeds that come

from *Index Seminum* vary in both quality and viability. And, with the precious few seeds provided, there is little room for experimentation.

Another formidable task is trying to resuscitate fading specimens in the Arboretum by taking cuttings. In most cases, the plants are old, declining, and sometimes diseased, with few available vigorous young shoots that make the best cutting material. Sometimes coppicing—cutting the plant back to a stump to encourage a flush of new stems—provides the needed propagation material. Other times, it becomes best to find a new source for the plant. Detailed records of the propagation process and results provide valuable reference information for future propagation of similar plants—both for the Arboretum and to share with other growers.

Plant Distribution — Sharing the Wealth

Sharing the wealth of material and information from the plant collection is integral to the Arboretum's mission. Every year, staff responds to requests from associated botanical gardens and arboreta, universities, and commercial nurseries. The goal is to provide material that is not readily available elsewhere.

The plant distribution policy allows for seeds or cuttings to be exchanged with sister institutions. Commercial nurseries are asked to make a donation to defray handling and shipping costs. Distributions are kept track of to allow for a source of replacement if the Arboretum's original plants die.

Surplus plants from nursery production are donated to other local institutions, Arboretum plant sales, and the Arboretum Foundation's Pat Calvert Greenhouse.

How can visitors obtain a plant seen in the Arboretum but not found in a local nursery? These requests go to the Pat Calvert Greenhouse, whose volunteers propagate plants from the Arboretum collections.

Plant Records— Keeping Track of It All

You may begin to wonder how the Arboretum keeps track of everything. Like other museums, the Arboretum maintains a well-documented record of the plant collections. This starts with the accession number —a unique identifier given to a single plant, group of cuttings, or packet of seed.

WPA helps gardeners by testing and selecting ornamental cherry cultivars for resistance to disease and pests.

Guidebook (62:1&2) 55

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A detailed recorded history of the life and death of each plant is linked to its accession number. The accession number also helps you find plants on the grounds. The Arboretum is mapped on a 100-x100-foot grid system, with each plant located within the grid. The accession and map record data are maintained on the database using mapping software designed specifically for botanical gardens. If you need help in finding plants on the grid map, ask at the Visitors Center reception desk.

Garden Maintenance— More Than Just Looking Good

Taking care of a living collection means much more than keeping things looking good. The Arboretum covers about 230 acres, with a densely planted landscape containing about 4,400 accessioned plants among the native trees and shrubs. Many of these accessions are rare or endangered in their native habitats. Replacement plants can often be difficult if not impossible to locate.

The main goal of plant care and garden maintenance at the Arboretum is conservation of the plant collections. The staffing level per acre maintained is one of the lowest in the nation for a garden of this type. Therefore, the challenge is how to best use limited resources to the greatest overall benefit. You can apply many of the basic techniques used in the Arboretum to the home garden, as well.

A good part of WPA horticultural maintenance is garden triage: Attack the most critical work over a large area to keep the most valuable plants thriving. For example, removing fast-growing morning glory vines that smother plants is helpful to do before cleaning up the less threatening (albeit unsightly) remaining weeds. Also, a plant care schedule for new plants is critical to providing intensive care for plants installed over

the last three years. This helps get young plants off to a strong start, preserves valuable plant stock, and reduces future maintenance needs.

Doing preventive maintenance, providing care before the need becomes blatantly obvious, is also important. The adage "an ounce of prevention is worth a pound of cure" applies to the scheduled care for many specialized plantings such as those in the Witt Winter Garden, Graham Visitors Center landscape, or Puget Sound Rhododendron hybrid plantings.

Annual planting is done between October and April. Irrigation dominates the schedule between May and September. Weed management goes on all year long, tackling different problems at different times in each season, with emphasis on the most invasive problems of herb robert, morning glory, and English ivy.

The arboriculture program covers the care and management of the large trees with the goal of reducing hazards through inspections and preventive work, as well as conserving the plant collections. This includes training young trees; pruning, cabling, and bracing to preserve large tree limbs; and removals. The effects of root rot diseases as large trees age are a major contributor to hazards and actual failures, particularly for bigleaf maples.

The Arboretum employs a holistic approach to plant health problems, combining the use of carefully timed, least toxic controls, cultural practices to improve plant vigor, and removal of the severely affected plants that cannot be restored.

The ongoing challenge is to work toward an increased level of staffing so there is less emphasis on triage and more focus on scheduled care.

Christina Pfeiffer has been WPA Horticulturist since 1987.

The Pacific Northwest Gardens Competition

Enter or Volunteer to Help
BY GERRY HOLLEY

he Pacific Northwest Gardens Competition is sponsored annually by *The Seattle Times* and the Northwest Flower & Garden Show, in cooperation with the Arboretum Foundation (AF). The Foundation is in charge of the Competition Committee; its volunteers handle entries, recruit gardens, find judges, hand-hold nervous entrants, and help host the awards party.

Wouldn't it be fun to be a judge in this contest? Judges see exceptional gardens and meet other enthusiastic gardeners. Judges at the first-round level are AF members, who complete four hours of training offered every spring.

Judges become part of a team that visits approximately eight gardens during two weeks at the end of July. Veteran judges have been happy to plan their summers around these weeks. The final two rounds of judging are done by professional landscape designers, landscape architects, or horticulturists.

When all levels of judging are complete, judges are among the first to see the top three gardens on a special day arranged by the Competition's steering committee.

At the awards party, about 200 entrants and volunteers come to enjoy food, music, tours of the Arboretum, and pictures of the gardens judged during the previous 15 days.

The dramatic moment is when 15 prizes of \$100 are awarded along with 20 "Golden Scoops" (a garden tool). The top three gardens are awarded prizes at a later event.

Gerry Holley is a longtime Arboretum Foundation volunteer. She chairs the Pacific Northwest Gardens Competition Committee.



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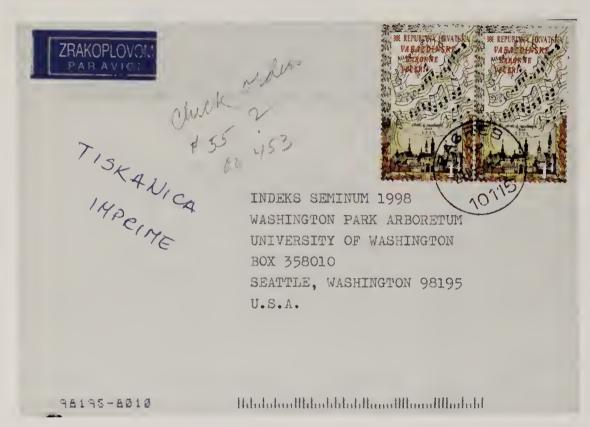
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Conservatively Speaking—

Conserving species & habitats in Washington Park Arboretum
BY JOHN A. WOTT



This envelope once held a query from Zagreb, Croatia (Hrvatska), to the Arboretum concerning a plant or seed exchange. The Zagreb institution was utilizing the *Index Seminum*, a way for horticultural institutions around the world to trade with each other. The Arboretum exchanges its highly desirable seed of Northwest natives and rare plants for rare and exotic plants to add to the collections.

onservation, recreation, and education are three anchors of Washington Park Arboretum (WPA).

Conserving exotic or non-native species has always been the Arboretum's priority. However, in the last 10 to 15 years, it has accelerated.

The Arboretum is home to 179 different species that are listed with the World Conservation Union (known as IUCN) as extinct, endangered, or vulnerable. It also is home to a number of species from original collecting expeditions, some of which are quite rare. An example is *Picea montigena* (candelabra spruce), as there are six trees on the WPA grounds. Ask where to find them at the Graham Visitors Center reception desk.

The Arboretum has been involved for many years in *Index Seminum*, an international seed exchange program among like institutions. It is the source of the majority of the Arboretum's collections and is helpful because sources and identities of new trades are verified.

To help others, WPA curators and collection managers have gathered seeds from native woody plants throughout the Northwest (Oregon and Washington) and offered them to gardens worldwide. What better way to preserve the gene pool of Northwest plants than to pass

samples around to many others? In fact, almost weekly the Arboretum gets requests from institutions about plants that may have been lost in the wild and in other collections.

WPA staff estimates there are at least 10,000 native trees and countless shrubs on the 230 acres. The Arboretum is instituting programs to manage this native matrix so that it, too, is a gene pool for the Northwest as well as being the glue that ties WPA collections together.

In plans for the future, the Arboretum also will remain sensitive to its natural topography and natural systems. Planners have characterized it as wetlands (along Duck Bay and Union Bay), valley bottom (Arboretum creek, Woodland Garden, and Rhododendron Glen), and forested ridge (the eastern higher land). The Arboretum will continue to carefully site plants and collections, as well as demonstration and interpretive areas.

Conservation at the Arboretum encompasses exotic collections, native plants, and the land and water. With growing impact of people onto its acreage, it's important to keep a vision of preservation for future generations on all fronts.

John A. Wott, Ph.D., is Director of Washington Park Arboretum.

By 12,000 BC, the present-day Arboretum site was a typical north to south-running ridge and valley bottom, with surface water runoff into the valley bottom and an outlet at Union Bay.

The Northwest Flower & Garden Show Preview Party

he annual Preview Party for the Northwest Flower & Garden Show is produced by the Arboretum Foundation to benefit Washington Park Arboretum. It takes place the night before the Show's opening, at the Washington State Convention and Trade Center.

Preview Party guests view dozens of beautiful display gardens in a relaxed environment, while enjoying fine foods, entertainment, and a silent auction.

Since the first Preview Party in 1989, the event has raised almost \$400,000 for improvements and operations in the Arboretum.

The Party has grown to become one of Puget Sound's premier fund-raising and social events, welcoming not only green thumbs and horticultural professionals, but also business leaders from throughout the region.

Photos

Brad Pugh helped design this award-winning display garden for the Arboretum Foundation.

Pictured here is an artful combination of

Pictured here is an artful combination of woody plants, a stunning waterfall, and a gate of wood and copper.





Ron Stone photo.

59

Plant Donations Department

BY BARBARA HARRIS

o you know a gardener who likes to throw away plants? Probably not: People give plants to friends, neighbors, and strangers passing by. The Arboretum Foundation (AF) viewed this as an opportunity and set up the Plant Donations Department.

Since 1994, Foundation volunteers have solicited plant donations to sell from members and other gardeners in the area. They've also received stock left from special displays and events.

Volunteer study is informal in the Plant Donations Department. Volunteers learn from each other's experiences; look up information in books; and at times rely on more knowledgeable people at the Arboretum and Center for Urban Horticulture.

If you like to work outdoors, consider becoming a volunteer. As plants come in, you'll help divide, trim, and pot them; make identifications; and note their growing needs. Through the season, volunteers also water and groom plants and patrol for slugs.

Plants for sale are divided into the following categories: trees, shrubs, vines, Northwest native plants, ferns, perennials, herbs and edibles, rock garden, ornamental grasses, and ground covers.

Location: south of
Graham Visitors Center.
Open to the public: Wednesday,
10am-2pm, year-round.
Open the second Saturday of the month,
April through October,
10am-2pm.

Volunteers help people locate plants for their particular site, answer customer questions about plant requirements, and serve as cashiers. For indoor work, they input data and make computer labels.

If none of these options appeal to you and you are a gardener, consider donating some plants to this popular AF service. Plants must be healthy and a manageable size.

The sales of donated plants grow each year, and the department now contributes a sizable sum to benefit the Arboretum.

Foundation member Barbara Harris is a longtime volunteer at the Arboretum and the Miller Library.



y Spurr

Volunteers at the Arboretum Foundation's Plant Donations Department pot about 10,000 plants to sell from April through October. Proceeds benefit the Arboretum.

Pat Calvert Greenhouse

BY ANN O'MERA

Location: south of
Graham Visitors Center.
Open to the public: Tuesday,
10am–12pm, year-round.
Open the second Saturday of the month,
April through October,
10am–2pm.

he Arboretum Foundation sells plants at the Pat Calvert Greenhouse, which opened in July 1959 as a Foundation Unit. Volunteers who work in the greenhouse try to keep a variety of popular, well-known Arboretum plants for sale in addition to a selection of choice, uncommon plants from the collections.

Most of the plants are in four-inch pots. Although this size seems small, the best varieties are usually sold before the plant (and price) have a chance to grow. Longtime customers know to shop a couple of weeks ahead of major plant sales to get the best selection.

Request a Plant Start

To obtain a start of a plant from the Arboretum collections, look on the tag of the plant you like and write down the name and accession number (the hyphenated numbers on the tag). Also add your name and telephone number. Do not remove the labels. If there is no tag, describe the plant, the surrounding area, nearby tagged plants, and any landmarks. Usually the hardest part of filling a cutting request is finding the plant someone wants. Take your request to the Greenhouse on open days or leave it at the Visitors Center reception desk. You'll be called when your rooted plant is available.

Join a Plant Propagation & Production Study Group

TUESDAY GROUP: 10AM-12PM. The Tuesday group focuses on propagating cuttings from the Arboretum collection and members' gardens. Volunteers take cuttings from the Arboretum, prepare them for the cutting boxes, pot up rooted cuttings, and answer questions.

Fifth Tuesdays, greenhouse volunteers have a potluck lunch in the Visitors Center to have a chance to visit, hear a guest speaker, or catch up on greenhouse news.

THURSDAY GROUP: 10AM-12PM. Volunteers maintain and promote the plants that the Tuesday group propagates. This includes pruning, weeding, potting up, and fertilizing plants and restocking the brimming plant cart at the entrance to the Visitors Center. Volunteers go out into the Arboretum with a digital camera and take pictures of plants to use in a reference notebook and for descriptive plant signs. The Greenhouse will not be open for sales on these days.

SATURDAY GROUP: SECOND SATURDAY, APRIL THROUGH OCTOBER, 10AM-2PM. The Saturday group does general plant care and plant sales. Usually the focus is on potting up rooted cuttings, re-potting plants in the nursery, and helping customers and visitors with their plant questions.

Ann O'Mera is an Arboretum Foundation Board member, who volunteers in the Pat Calvert Greenhouse.

Photos

OPPOSITE PAGE: You can purchase from the Plant Donations Department from April through October. Pat Calvert Greenhouse is open throughout the year. Select plants from the Greenhouse can also be purchased year-round from the cart in front of the Graham Visitors Center.

The Pat Calvert Greenhouse sells about 3,500 plants per year, providing funds to support the mission of WPA.

Guidebook (62:1&2)



Join a Unit—Learn as You Volunteer

BY JOAN HOCKADAY

ome Arboretum Foundation (AF) members live close to the Arboretum. Some even grew up so near that they remember hearing rustling leaves in fall and discovering the most *unusual* plants overhead and under foot.

For those far-flung members who live miles (or just blocks) away, the Foundation figured out a solution many years ago. AF Units were formed as guild-like groups that support the AF mission while encouraging independent study, seminars, and field trips for each group.

Every member can join a Unit. Some units specialize in research, lectures, and field trips; some supply expertise and muscle power for plant sales; and others organize fund-raising events. Each Unit has its own focus within AF's network of members.

The first Unit became active in the 1930s, when the Arboretum was new. The most recent

Unit came on board in the 1990s. More than 40 different Units now support the Foundation's mission to support the Arboretum and enhance the horticultural knowledge of the community.

Many Unit names echo the history of these venerable groups. Some examples are: Southwest Ramblers, Mountaineers, Greenhorns, Arboretum Amateurs, Seedlings, Sprouts, Wood Bees, and the Couples Club.

Other Unit names indicate location: North Seattle, Vashon, Olympia, Whidbey Island, Wallingford, Medina, and two Edmonds/Lynnwood/Richmond Beach Units. Seriously, there's an Adam & Edith unit, a merger of two different originals, whose union brings to mind another garden.

Some Units can't wait to name their group after a founding or honored member, though one member protested, saying she wasn't dead

The efforts of Unit members produce income from plant, book, and craft sales, as well as study groups and educational programs. Funds from Arboretum Foundation Units help support Washington Park Arboretum.

yet. The Unit members named it for her anyway, but true to form she lived another 20 years.

Typical honorees read like a *Who's Who* of Arboretum history: Brian Mulligan (formed in 1976 to honor the onetime WPA director), Ila Clark (1951), and Myrtle DeFriel (1964).

Units are numbered, to indicate seniority, but even that system has changed over time. The numbers now climb into the 90s; the highest number, 98, is held by the Tacoma–Gig Harbor Unit. New members have a rich past to explore in joining any Unit.

Catered lunches and camaraderie are two reasons to join the Marty Trosper Unit (33). The 25 active members meet most months in homes

Photos

Arboretum Foundation clubhouse, honors the dedication of the Ella Raines Memorial bench, sponsored by Raines Unit number 35. The bench remains an inviting rest spot near the Witt Winter Garden. RIGHT: Unit 30 collects holly for the Greens Galore sale held in December. Below: Unit 66 once helped with plant sales and the greenhouse; member Vivian Meade started the seed packaging program. Though they just reunite yearly now, they often won awards as the Unit with the most participation.

or occasionally at the Arboretum: "There's a good kitchen there!" Virginia Wells of this unit reminds members. Items from the Arboretum Gift Shop were delivered to one monthly meeting and quickly purchased, all in aid of the Foundation. In addition, members tour gardens, bring items for plant sales, and invite speakers to educate members.

Joan Hockaday has authored gardening books and hosted a radio show. She is a Foundation member and member of the *Arboretum Bulletin's* editorial board. Joan is Seminar Coordinator for the Northwest Flower & Garden Show.



Deborah Andrews



Penny Lew

63

Arboretum Books, Brochures, and Maps

BY BRIAN THOMPSON

isitors to Washington Park Arboretum (WPA) love to take something away with them to remember it by. Arboretum Foundation members, students, and tourists like to be kept informed of the many activities, changes, and concerns of this great resource.

The publications described below help the Arboretum teach and share this information with the public. The result is a wide variety of offerings available for free or at minimal cost.

Publishers include the Arboretum Foundation (AF), Center for Urban Horticulture (CUH), Miller Library (ML), Seattle Department of Parks and Recreation (SDPR), and Washington Park Arboretum (WPA). Publications are free unless priced.

In the Graham Visitors Center, WPA

Books

Mills, Kimberly. Washington Park Arboretum Guidebook (AF, 2000). Mills succinctly reviews the different collections, including special sections on seasonal highlights, Arboretum history, and the Japanese Garden. The section maps are useful, and illustrations by Tamara Underhill add to the reader's understanding and enjoyment. \$9.95.

Spurr, Joy, editor. Cuttings through the Year (AF, 1995; fourth printing). Originally published in 1980, this longtime favorite compiles the propagation experience of Arboretum staff and Arboretum Foundation members. Many techniques for starting cuttings from woody plants are discussed, with special consideration for specific plant groups. Probably the most well-read section is the month-by-month calendar, which shows the best timing for taking cuttings from a wide selection of plants. \$3.50.

The Woody Plant Collection in the Washington Park Arboretum (WPA, 1994). Arboretum explorers find this book useful. It alphabetically lists plants by scientific name and provides the grid location of each plant within the collection. All taxonomic variations and cultivars are included as well as name authority, common name, and country of origin. A fold-out map shows how to find each plant; map quadrants are indicated after each listing. \$9.95.

Periodicals

Washington Park Arboretum Bulletin (quarterly, AF). The Bulletin is the voice of the Arboretum worldwide, yet it also is very valuable to local botanists, horticulturists, and home gardeners. Every issue includes articles by experts highlighting individual plants, the development and maintenance of the Arboretum's collections, elements of garden design, the flora of the Pacific Northwest, and reviews of new books on these topics. It is a benefit of membership in the Arboretum Foundation. Current and back copies (including the previous guidebook) are available at the Graham Visitors Center. Priced as marked.

Ground Work (AF). This newsletter provides information to AF members about current Foundation activities, including plant sales, events, and the activities of individual units. It is a benefit of membership in the Arboretum Foundation.

Brochures, Maps & Pamphlets

Arboretum Foundation Events. Published annually (AF).

Arboretum Waterfront Self-Guided Trail (SDPR).

The Holly Collection at the Washington Park Arboretum (WPA).

The New Zealand High Country—An Eco-Geographic Exhibit of Select New Zealand Plants (WPA).

Puget Sound Hybridizers' Garden (WPA).

Trail Map: Washington Park Arboretum (WPA).

Visitor Guide: Washington Park Arboretum. (AF, 2000). A pocket version of the Mills guidebook, complete with map and other basic information about the Arboretum. \$0.50.

Washington Park Arboretum Volunteer Opportunities (AF).

A Winter Garden (WPA).

Wisteria at the Washington Park Arboretum (WPA).

At the Japanese Garden

Brochures, Maps & Pamphlets
Japanese Garden: A Self-Guided Tour
(SDPR).

Smith, Kathleen, and the Japanese Garden Society. *Plants of the Japanese Garden* (SDPR, 2000). This is a complete listing of the plants growing in the Japanese Garden. Decide which of the areas indicated on the map you're viewing, then refer to the text for plant scientific name, cultivar, and common name. Each listing has helpful clues, such as flower color or height, to help you with your identification. \$4.00.

At CUH

Books

Kotz, Suzanne. *Nature Is Visible, Art Concealed* (ML, 2000). This small book highlights a selection of rare and old books in the collections of the Elisabeth C. Miller Library. It leads the reader through the history of botanical and horticultural publications by profiling over 30 of the library's most important holdings, dating from 1629 to 1929. Available by request in the Miller Library.

Periodicals

Urban Horticulture (quarterly, CUH). It features a seasonal calendar and update of events, including a wide selection of classes for the general gardening public offered by CUH, many of them held at the Arboretum. Free subscription by contacting CUH.

Prohort (two to three times per year, CUH). Intended for the horticulture professional, this newsletter announces training and certification classes and other programs for those involved in landscape design and maintenance, nursery management, urban forestry, and other closely related fields. Free subscription by contacting CUH.

Brochures, Maps & Pamphlets
Center for Urban Horticulture (CUH).
Elisabeth C. Miller Library (ML).
Maps and plant lists of gardens (CUH).
Volunteer Opportunities (CUH).

On the Internet

The Arboretum Foundation. http://www.orgsites.com/wa/arboretum foundation/Wondering what the Arboretum Foundation is all about? This site explains the mission, volunteer activities, and the benefits of membership.

Washington Park Arboretum. http://depts.washington.edu/wpa/

Whether you're interested in the history or future of the Arboretum or need space for a wedding or event, this web site provides answers. Listings of seasonal highlights, vistas from favorite spots, and extensive cyber-tours of selected collections give a preview of your in-person visit. Be sure to find out about education programs and volunteer activities.

Center for Urban Horticulture. http://depts.washington.edu/urbhort/

Get a sense of CUH, what it is, and its depth and breadth of activity. Find out about research projects, such as the Rare Plant Conservation program. Review the educational offerings at all levels. If your horticultural organization is looking for meeting space, check the rental options. Read about the gardens at CUH, and plan a visit.

Elisabeth C. Miller Library. http://depts.washington.edu/hortlib/

The Miller Library at CUH makes many of its excellent resources available over the Internet. Access basic information about the library as well as peruse over 50 book lists and other sources on a wide variety of topics. Find calendars of plant sales and garden tours, see what new titles are available, browse the Directory of Horticultural Web Sites, and visit the library's catalog.

Brian Thompson is a librarian at the Elisabeth C. Miller Library at the University of Washington's Center for Urban Horticulture.

Reach the Miller Library: 206.543.0415.

Self-Guided Year-Round Tour

BY JEANNINE CURRY

veryone should know that Washington Park Arboretum is home to the greatest variety of temperate-climate plants—whether native, exotic, or naturalized—in the United States. And in order for you to brag about it, you must tour it.





Start at the west entrance to Graham Visitors Center, and cross diagonally (veering left) to the wide trail.

Go about 40 feet to *Malus fusca* (Oregon crabapple). This sprawling specimen is a bonus in winter because its tortuous trunk is any child's dream of a climbing tree. Stay on this trail until you reach the entrance to the Witt Winter Garden. Do not go in, but turn left. At the next curve of the trail stand two sentinels: *Ulmus glabra* 'Camperdownii', a product of grafting. The web of entangled limbs holds crooked branches that dangle to the ground like limp dread locks. The thick green leaves of summer, however, transform it into a giant green umbrella.

Continue on the same narrow path overlooking the Woodland Garden pond. Varieties of Japanese maple grow on the slopes. They somehow look frail in the winter, but each tree has leaves





Photos

opposite page: The dove tree (top), *Davidia involucrata* var. *vilmoriniana*, is a favorite in April in the *Cytisus* (broom) section. Autumn brings the reds of *Aesculus flava* and the pinks of *A*. x *media* (bottom).

THIS PAGE: Also look for *Dipelta floribunda* (top), which offers a rich display of white flowers. *Rhododendron* 'Cilpinense' (bottom) provides delicate March color to the Arboretum.

of different colors in spring, and this diversity is still apparent in the fall.

When the trail turns sharply downward to the left, notice the olive-green, strongly veined trunk on *Acer davidii*, whose protruding branches mingle with those of *Lindera obtusiloba*. The light yellow in the March blooms is mimicked in the fall foliage. Beyond the *Lindera* stands *Cornus kousa* (Korean dogwood), a good performer for a small garden. In June and July, there are white flowers, followed in autumn by erect bright red, round fruits.

At the bottom of the small slope, cross over a small brook where the skunk cabbage's trumpet-shaped yellow flowers appear in April. Turn east (left) and continue on this path, heading to Arboretum Drive East. On the left, you see only bare branches in the winter, but a feast for the eyes awaits you in October when the trees, all labeled, compete for attention: Find *Acer palmatum*, *Oxydendrum arboreum*, and the stately *Crataegus* x *lavallei* 'Carrieri', a popular hawthorn in all seasons, at the street edge of the grassy area. Its glossy green leaves cannot hide the profuse orange to red fruits in the fall.

Go right (south) on Arboretum Drive East for about half a block. At the west edge of the grassy area, find a sprawling shrub with flaring yellowish twigs in winter, and abundant leaves in late spring and summer. Calycanthus occidentalis (spice bush) is a primitive plant which, in summer, gives birth to fragrant maroon lotus-shaped flowers contrasting with the thick aromatic leaves.

Across the street, on the north side of the fenced-in area (the nursery) about 20 feet from the street, stands a venerable *Acer palmatum* 'Ever Red', estimated to be between 85 and 100 years old. It is a gift from a generous benefactor.

Continue south on the road, and look inside the nursery at the *Magnolia macrophylla* (bigleaf magnolia) with downy beige meandering branches; the unusually stiff and gangly tree was too crowded in its youth. It has a quasi-tropical appearance in the summer months with its 20-inch leaves. In early summer, buds shaped like upside-down pears burst into 12-inch white bloom, with purple markings at their base.

Follow the road, past the row of *Tsuga canadensis* (Canadian hemlock) on your left, and at the end of the small parking lot is a sign marking the entrance to the Brian O. Mulligan *Sorbus* Collection—the largest collection of mountain ash in the country. There, on your right, is a

Picea brachytyla (Sargent spruce), worthy of a visit during winter and summer. In July, the tips of the branches bear bright red male cones.

Enter the path to the *Sorbus* Collection. The *Sorbus cashmeriana*, left of the Flower to Fruit sign, has a delicate pattern of fern-like compound leaves, turning red in autumn; the bunched fruits remain until birds discover them. Look for *S. vilmorinii*, also small, with an airy pattern. At the south end of the path, on your way to the road, is the Mediterranean area. Stop at the bed near the roadside. Although your eyes are not drawn to the small evergreen tree, *Quercus suber* (cork oak), get close, and look at the two-inchthick bark. This tree will produce a new marketable skin seven years after harvest.

Go south to find *Sequoiadendron giganteum* (giant sequoia) at the road's edge. A little further on is *Sassafras albidum*, which has a sort of conical shape and flexuous limbs and twigs. Mittenshaped leaves almost conceal the small yellow spring blooms; fall color is orange and red.

Keep going south, past three trees labeled *Acer davidii* on the west side, and at the next bend and across the street is a large dove tree, *Davidia involucrata*. Its brown fruits from autumn still dangle from the branches in winter. In May, white flowers resembling two triangles linked at the base flutter in the breeze like dove wings.

Just as you reach the Rhododendron Glen sign, take the steps leading down to the Upper Trail. It is worth a small detour because 30 feet away is a small creek bed on the left side, which has been completely renovated. Large pebbles line the bed. It is fed by ground water from the Arboretum and adjacent Broadmoor and drains to a small holding pond.

Return to the road. Just after the double parking lot and past the Camellia Collection sign, enter the right branch of the trail. At the edge of the clearing, notice the trunk of the Stewartia pseudocamellia (Japanese stewartia), which is dappled like a military camouflage uniform; beyond it, the bark of the S. monadelpha (orangebark stewartia) shines like mahogany. The white flowers bloom in June and July, followed by richly colored leaves in autumn.

Follow the trail to the right. At the edge of the clearing is *Magnolia* 'Diva'. At the branch of the path, turn right, then left down the hill past the stream and pond to a flat, wide, grass-cov-

ered road: Azalea Way. Almost directly across the pond, several venerable *Prunus serrula* (birchbark cherries) have bare, gnarled branches reminiscent of old fingers.

Go north, on the east side, to a stand of birches: Two Betula papyrifera var. commutata have white-washed looking trunks, and Betula albo-sinensis var. septentrionalis has flesh-colored bark that looks like piglet skin.

It is quiet in winter, wandering north on Azalea Way, but in spring and fall there is a burst of colors on the hedge of flowering cherry trees and azaleas. Visit the renovated Puget Sound Rhododendron Hybrid Garden. Glance at the entrance to Loderi Valley to your right. In April, the tall, smooth shiny black trunks of these impressive plants will form an arch surmounted by large, fragrant trusses in various shades of pink.

Walk several blocks north on Azalea Way to the next pond; all the trees on each side of Azalea Way are almost indistinguishable in winter, but that is where autumn has its last hurrah. On the west side, a tall *Carya laciniosa* (shellbark hickory) serves as a background to two tall *Acer rubrum* (red maple). To the south end of the pond, sprawls an old and very broad *Acer palmatum*, the most brilliant of all maples. But the star of the show is towering at the east end of the pool: *Liquidamber styraciflua* (sweet gum), with exuberantly colored leaves of yellow, red, orange, lavender, and almost black.

Continue northward on Azalea Way and its rows of evergreen and deciduous azaleas. Their impressionist-like display in early May is a magnet for springstarved visitors. On the west side, standing tall beyond the azaleas, are two *Chamaecyparis nootkatensis* (Alaska cedar), which remind children of ghosts.

Return to the Visitors Center parking lot, where you may be surprised to see two palm trees by the greenhouse. These are *Trachycarpus fortunei* (windmill palm), native to China but happy in the Northwest climate. Their rough-looking trunks are covered with wiry fibrous remains of the old leaf base; in early summer, find small yellow flowers.

In October, the burnt sugar scent permeating the air in the parking lot is courtesy of the yellow-and pink-leaved *Cercidiphyllum japonicum* (katsura) planted in the dividing islands.

Jeannine Curry is a longtime Foundation member and winner of the Brian O. Mulligan Volunteer Award. She is on the *Bulletin* editorial board.

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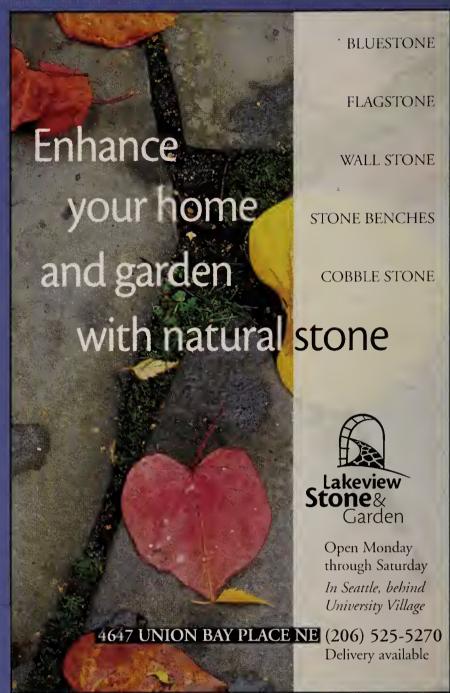
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